Puolustusvoimat
The Finnish Defence Forces

Soldier's Guide

2017



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1 To the reader and instructor



To the reader

This Soldier's Guide provides you with the basis for acquiring the basic skills needed by a soldier in all services. It is intended for the basic and specialisation phase of your training as a soldier. You can find out more about the topics in this book, for instance, from the General Service Regulation or other books such as the Navy Soldier's Guide. The basic skills of soldiers of individual branches within the services are presented in branch-specific guides and handbooks and these are used during the specialisation phase. Leadership training will involve an additional set of text books and regulations.

To get an overall picture of the book, we recommend you read through the contents page. Flip through the book. There is a general description of the training and its objectives at the beginning of each chapter. Key concepts and important things are highlighted in the text in bold and separate information boxes. Pictures and tables provide additional information as well. Each chapter ends with a set of questions and some scenarios to encourage further thought and discussion. You can find more information on the subjects discussed here in the books and teaching materials listed in the bibliography at the end of this guide.

Detailed week and day schedules on upcoming exercises and lessons are displayed on your unit's notice board. The week schedules may refer you to specific pages in this Soldier's Guide or the regulation that you should familiarise yourself with before an exercise or lesson.

The most common regulations are also found on-line at puolustusvoimat.fi/asiointi/aineistot/ohjesaannot-ja-oppaat.

You should familiarise yourself with the training topic beforehand. Even a little preparation will go a long way. It makes the actual training less stressful, you can participate in the discussion and you can help others learn too. Remember: the only dumb question is the question you leave unasked!

Soldiers learn their skills through practical exercises and the way to learn is to repeat something so often that it becomes a routine. There is no point in practising something the wrong way. You won't learn properly unless you understand why something is being done the way it is.

The Soldier's Guide contains instructions and recommendations on training and other service-related matters.

The legally binding and specific regulations on training, in-service safety and other service-related matters are to be found in the Finnish Defence Forces' collection of norms.

Keep this guide as a memory of your military service. You can then read up on the most important things as you prepare for a refresher exercise.

To the instructor

The Soldier's Guide is given to every conscript and to every woman doing volunteer military service during the first week of their basic training period. The book is used throughout a conscript's time in the military and once they transfer to the Reserve. Every student, section leader, recruit and instructor must also have with them the most recent edition of the guide.

The aim of the book is to support learning and teaching during the basic training phase. The aim is also to harmonise learning content in the three services, all branches and brigade-level units. The Soldier's Guide is revised every 2 years so that all information is up-to-date.

All training must take into account in-service safety, danger notifications and traffic safety instructions. Training must explain what the major differences between peacetime and wartime procedures are.

The Guide's themes correspond to the training modules used in conscript training. The beginning of each chapter outlines the objectives of the training in question.

The chapter itself introduces key concepts and activities from a soldier's perspective. Images have been integrated into the text by way of references. Most of the image material has been sourced from other teaching material. The aim is to link the material in the guide with actual teaching material used during lessons and the teaching itself.

Make use of material that has been specifically developed for teaching purposes in your unit.

Conscripts are to be supported in their learning by assigning them self-study and pre-lesson tasks as well as by writing down the page numbers in their daily and weekly schedules. As an instructor you must strive to awaken conscripts' interest in the topic at hand and link it to something that they have already learnt and experienced. This is best done by coaching conscripts beforehand on upcoming topics and by linking the topic at hand to earlier training modules.

Give the conscripts some background, focus on core content, make it into a problem-solving task, encourage discussion and argue your case. Encourage conscripts to ask questions, as this makes your job easier and improves learning outcomes. At the end of each chapter there are questions and possible problems relating to them. Their purpose is not to make conscripts repeat things that are presented in the guide. Instead, they are meant as topics for discussion.

The questionnaire relating to the material in the Guide is part of the basic military exam. Along with instructions for its use, it can be found in **PVMOODLE** as an annex to the norm concerning training that all conscripts receive irrespective of branch or service.



2 General arrangements of conscript training

This chapter gives an overview of conscript training and its implementation. The focus is on the basic training phase and soldier's qualification. This chapter also describes the content of the special training and unit training phases as well as the training given to reserve NCOs and reserve officers.

What are your goals in relation to conscript training?



2.1 Grounds for, and purpose and aim of conscript training

Conscript training is based on **general conscription.** Conscript and reservist training are connected in order to form a consistent whole.

Conscript training produces the main part of the skilled, motivated and capable personnel required for the wartime forces. Know-how that a conscript has acquired before military service begins is identified in the call-up and in the preliminary questionnaire and interview conducted at the beginning of military service. The information obtained is taken into consideration in training programme selections. Special knowledge acquired before military service begins is also put to good use in special assignments for conscripts.

Each conscript is trained for a wartime task. Training is mainly implemented in service tasks in accordance with the force production plan. Conscript selections are made based on wartime need and the person's skills, willingness and leadership ability are taken into consideration in selections. From the point of view of the effectiveness and credibility of the conscription system, it is important that the persons with the best leadership abilities are chosen for leadership tasks.



During the troop training phase, conscripts are trained as a wartime troop and they are placed in the reserve in the same composition. Conscripts are notified of their wartime placement at latest when they muster out. At this time, the aim is also to notify conscripts of the date of the first refresher exercise and possibilities for developing their own know-how and capabilities independently and voluntarily, as well as for maintaining the connection with their wartime troop in the reserve.

As the battlefield becomes more technological, it changes to become more multiform and asymmetrical, which requires soldiers to have not only physical strength, but also psychological, social and ethical capabilities. Throughout military service, conscripts' capabilities are developed in a comprehensive and goal-oriented manner, with varying focus according to training phase.

Military service is part of an individual's education and career. In cooperation with educational institutions and employers, the Defence Forces promote the acknowledgement of know-how acquired during military service.

UNARMED SERVICE A person liable for military service who asserts that serious reasons of conscience prevent him from performing armed military service and who applies for unarmed service will be exempted from armed service and assigned to unarmed service (Conscription Act, Section 67). Application forms are available at regional offices, brigade-level units and on-line at puolustusvoimat.fi/asiointi/lomakkeet.

Applications must be filled in according to the given instructions and signed by the applicant. Applications are delivered to the regional office or the commander of the brigade-level unit in which the applicant is stationed.

The service time for unarmed service is 255 days, unless the conscript is required to participate in training which requires a 347-day service time (Conscription Act, Section 69).

» *The aim of conscript training is to produce combat-efficient forces and specialist personnel for the reserve and to ensure that the individual and the force possess the know-how and capabilities needed in exceptional circumstances.*

The know-how and capability of conscripts must be brought to such a level that, together with their unit, after transferring to the reserve, they are able to successfully carry out the combat missions of their service and branch for at least two weeks in **continuous combat** and continue performing missions successfully for 3-4 consecutive days and nights in **demanding decisive combat.**

In addition to providing you with military training, of what other use is conscript service to you?

After military service, conscript training is of **practical use in working life, studies and hobbies.** Military service provides knowledge, skills and experience. It develops capabilities both mentally and physically.

Military training fosters taking responsibility for yourself and your service comrades. It teaches you to cooperate, work in a group, be punctual and systematic. Military service gives young people the chance to feel good at something, it provides challenges and it makes people test and find their limits. Leadership training for conscripts starts a life-long systematic process of development as a leader of people.

» *Military training fosters taking responsibility for yourself and your service comrades. It teaches you to cooperate, work in a group, be punctual and systematic!*

Military training teaches goal-oriented action and how to focus your resources in order to reach an objective. The training also develops all participants' capability for cooperation and group work skills.

Conscript training teaches you physical skills and improves your physical capability. It also helps to develop a healthy way of life and healthy eating habits. Conscript training teaches you to move and survive in nature. During the training you also receive useful first aid training.

In **leadership and instructor training** you will be familiarised with the concept of deep leadership and learn teaching skills. The training provides good basics for leadership and instructor tasks and gives conscripts the opportunity to grow as leaders. As a conscript leader you are responsible for your subordinates and for the equipment you are given. You will carry out real leadership tasks, which would not be possible if the studies were only theoretical.

All conscripts receive **a certificate of service and a personal appraisal** when their service is completed. This includes the content of the training received during military service, work experience and individual abilities. This documentation can be used when applying to study, applying for jobs, as well as for assessment of whether credit for studies during military service can be given in relation to other studies. In addition to this, separate certificates and detailed descriptions can be issued of courses taken, or other training and work experience gained by a conscript. In addition to the NCO and reserve officer courses, training for which certificates are granted can be training that produces e.g. a license or right, such as driver training, including professional competence training, or some other activity that can be considered to be of use after military service.

In their own free time, conscript leaders also have the possibility of completing eight credits

worth of voluntary on-line studies at the National Defence University using the PVMOODLE portal. After successfully finishing the studies, you will receive a certificate of studies completed from the National Defence University.

Each educational establishment, university and institution of higher education determines whether credit is given for education, training and work experience during military service when applying to the establishment or in the studies themselves. Information on credits given for studies during military service is provided by the educational establishments in question.

Military police training is of use when applying for jobs in the police force or in the security field. Military service opens up the possibility of applying to serve as a peacekeeper and provides basic training and the opportunity to pursue a military career. Training in the Finnish Rapid Deployment Force gives you the right of precedence to crisis management tasks.

Planning and implementation of conscript training

Conscript training builds on previous education provided by society and takes into consideration civilian education already gained as well as the future education of conscripts in accordance with wartime needs. Progression in conscript training takes place based on the abilities, characteristics and performance of each individual.

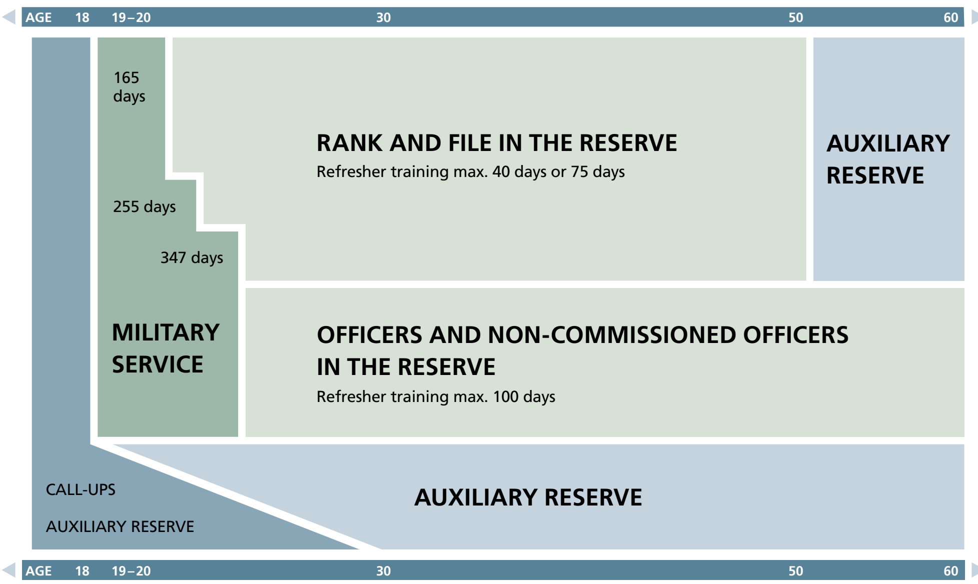
Training is planned and implemented in a way that makes conscripts feel from the very beginning that they are an important part of the Defence Forces. It is possible to find the best-suited wartime task for each individual. Successful training increases the sense of belonging between the conscripts and their instructors. Military training brings trust in our ability to defend our country and in this way strengthen our citizens' defence will. Training is planned to be goal-oriented, challenging, motivating and rewarding. The capacity for initiative, activity and independence of those in training is supported and their service is valued.

Training includes practising cooperation within a small unit. Training is demanding and to the point and it includes fair military discipline. Arranging service and free time in an appropriate way maintains trainees' alertness and helps to regulate the burden caused by service. The physical aspect of military service is planned in weekly and daily schedules in such a way that physical fitness increases gradually. This includes appropriate alternation between physical effort and rest. In-service and traffic safety are emphasised in peacetime training. Ending heavy physical training at the beginning of free time is avoided. By using transportation provided for leave travel, you don't need to drive your own car when you are tired.

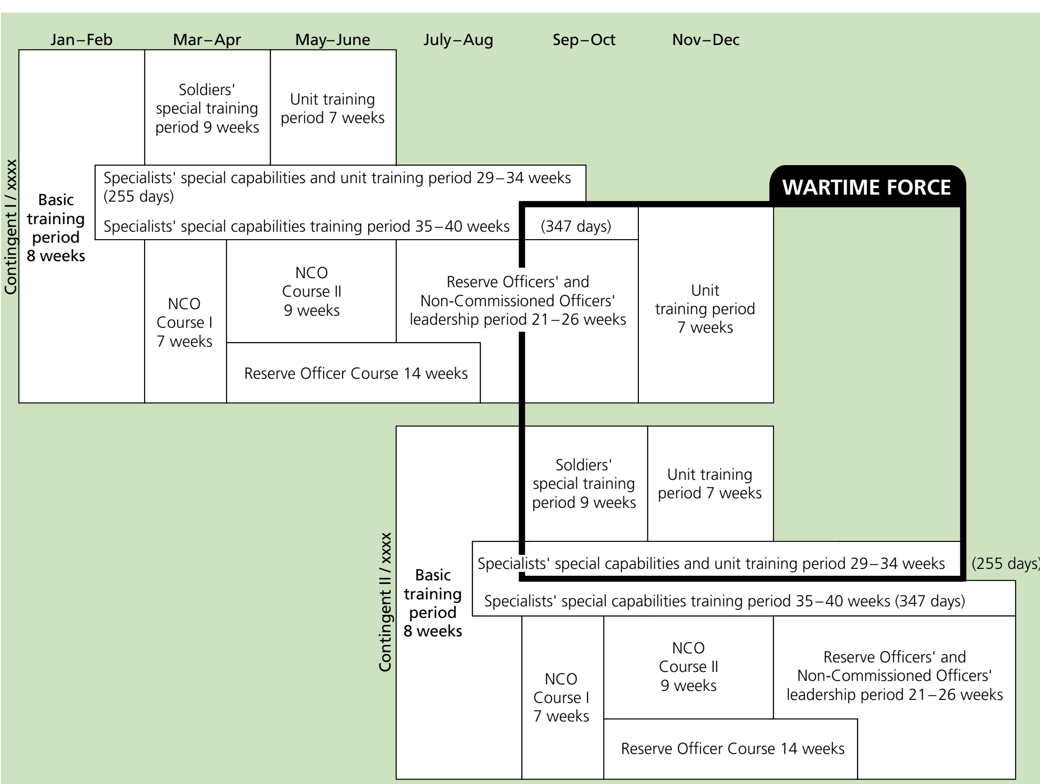
Further information on the basics of conscript training is available on-line at varusmies.fi.

2.2 Phases of the period of liability for military service and military service itself

Time of liability for military service (43 years)



General phases of military service



2.3 Basic training period

The overall aim of the basic training period is that when conscripts have completed it, they possess the **basic skills of a soldier.**

One of the most important issues that conscripts are taught during the basic training period is the safe handling and use of the assault rifle and ammunition. Successful training selections at the end of the training period are also important. In addition to this, by living and functioning together, recruits learn the basics for working together. They learn to work within a military organisation, understand the significance of chain of command and military order in relation to the unit, as well as the obligations that a given task places on an individual soldier.

For most conscripts, the basic training period lasts 8 weeks. During the first weeks, conscripts get used to the daily service rhythm of a company and brigade. During the basic training period they learn the basics for military activities and the basic skills of a soldier. In all services, basic training teaches conscripts the basics for carrying out, in a safe manner, the tasks of an individual soldier, member of a two-man team or a patrol and as part of a section.

The basic training is the same in all branches of service.

During the basic training phase, conscripts take the **basic military exam** that measures individual knowledge and skills in weapons and marksmanship training, combat and march training as well as physical fitness training. The exam includes basic firing (incl. marksmanship test), live firing exercises, marches, combat training track, weapon handling track, orienteering/land navigation exercises and a written test on the Soldier's Guide. The reward for completing the test commendably is exemplary conduct leave!

Training selections are made during the basic training period. Those in training are ordered into different branches and groups for training as well as leadership training or special capabilities training. During the basic training period, conscripts can apply to special tasks corresponding with their own know-how and civilian education. Information on these and on applying for them is found on-line at varusmies.fi/erityistehtavat.

Soldiers are conscripts who have received rank and file training and are assigned to combat duties in wartime units. Physically and mentally strong and persevering conscripts are selected for soldiers' training.

Specialists are conscripts who are trained for the most demanding wartime tasks and for peacetime rank and file tasks that require special training. These are e.g. military drivers, battle tank crew, soldiers serving among the naval troops, military police, conscript chaplains and certain other special tasks requiring professional know-how. Conscripts who have an appropriate civilian education or other suitable characteristics are selected for specialist training.

Conscripts whose prerequisites for leadership and learning have been tested and, based on this, are assessed to be the most suitable in the contingent are selected for **leadership training.** The Defence Forces wartime leadership needs are taken into consideration in selections.

Basic training period training plan

1. Weapons and marksmanship training 85 hours

- basic knowledge of shooting with an assault rifle
- handling of weapons
- basic and live firing

2. Combat and march training 67 hours

- combat training
- march training
- CBRN defence training

3. Capability training 73.5 hours

- Basics of capability and goal setting
- Theory of physical capability, physical education and physical capability tests
- Light and sound phenomena of the battlefield
- Well-being, coping, strain and recovery as well as stress management
- Basics of group action and group formation
- Social matters, prevention of exclusion, non-discrimination and equality
- Prevention of inappropriate behaviour, soldiers' communication and people skills
- Conscript Committee
- Administration of justice
- Security policy
- Military chaplain's lessons
- Military oath or affirmation

4. General military training 27 hours

- general service periods
- close order

5. Safety training 14 hours

- Readiness and rescue training
- Occupational and in-service safety
- General safety education and traffic safety
- Information and cyber security

6. Arrangements 33.5 hours

7. Catch up and refresher training ordered by unit commander 7.5 hours

8. Training branch training 15 hours

Total 322.5 hours

Detailed training plans are drawn up in each brigade taking into consideration force production tasks and local circumstances.

2.4 Basic military exam

Purpose of the exam

During military service, the basic military exam is taken during the basic training period and the soldier's training branch exam during the special capabilities training period. The basic military exam is meant for all conscripts in the Finnish Defence Forces. It measures knowledge of and participation in the most important parts of basic training. The exam ensures that trainees have achieved the learning objectives and provides goal-orientation and motivation for learning. The results also serve as feedback for both instructors and soldiers concerning the knowledge and skills acquired during the basic training period. The basic military exam is not a competition. The exam encourages trainees to actively participate in training events. The tests and training events required for the basic military exam are presented in the following list:

Basic military exam

1. Weapons and marksmanship training (Tot. 0–12 points)

MARKSMANSHIP TRAINING

Approved performance in the following basic firing training:

- Shooting 2 (AR2)
- Shooting 3 (AR3)
- Shooting 4 (AR4)
- Shooting 7 (AR7)

Pisteytys : 1 piste / hyväksytty ammunta

SHOOTING SKILLS TEST (SST)

Points:

1 hit	0 points	No class / Poor
2 hits	0 points	No class / Poor
3 hits	0 points	No class / Poor
4 hits	0 points	No class / Poor
5 hits	1 point	III CL / Passable
6 hits	1 point	III CL / Passable
7 hits	2 points	III CL / Satisfactory
8 hits	2 points	III CL / Satisfactory
9 hits	3 points	II CL / Good
10 hits	3 points	II CL / Good
11 hits	4 points	I CL / Very good
12 hits	4 points	I CL / Excellent

LIVE FIRE EXERCISES

Points:

Live fire exercise 1 (L1), completed = 2 points
Live fire exercise 2 (L2), completed = 2 points

2. Combat and march training (Tot. 0–14 points)

COMBAT TRAINING

Taking part in combat training exercises

Points are given e.g. as follows:
Bivouacking exercise 1, completion
Combat training exercise 0-4 points, e.g. point / day (determined by brigade-level unit)

MARCH TRAINING

Participation in marches gives the following points: March 2, completed = 1 point

COMBAT TRAINING COURSE

Training level is assessed on a course consisting of 6 control points.

Points:
Not completed, 0 points (performance lacking)
Completed, 2 points
Completed excellently, 4 points

▶

WEAPON HANDLING TRACK

Training level is assessed on a course consisting of 6 control points.

Points:
Not completed, 0 points (performance lacking)
Completed, 2 points
Completed excellently, 4 points

3. Fitness training (Tot. 0–2 points)

Participation in physical training
Land navigation exercise 1 (basic skills 1), completion = 1 point
Land navigation exercise 2 (basic skills 2), completion = 1 point

» *You know what tasks are included in the basic military exam and you can practice them independently in your own time. However, the best preparation for the exam is regular and active participation in daily training events during the basic training period.*

4. Written test (on the Soldier's Guide) (Tot. 0–2 points)

Points:
Not completed, 0 points (<50%)
Not completed, 1 point (50%–75%)
Completed excellently, 2 points (>75%)

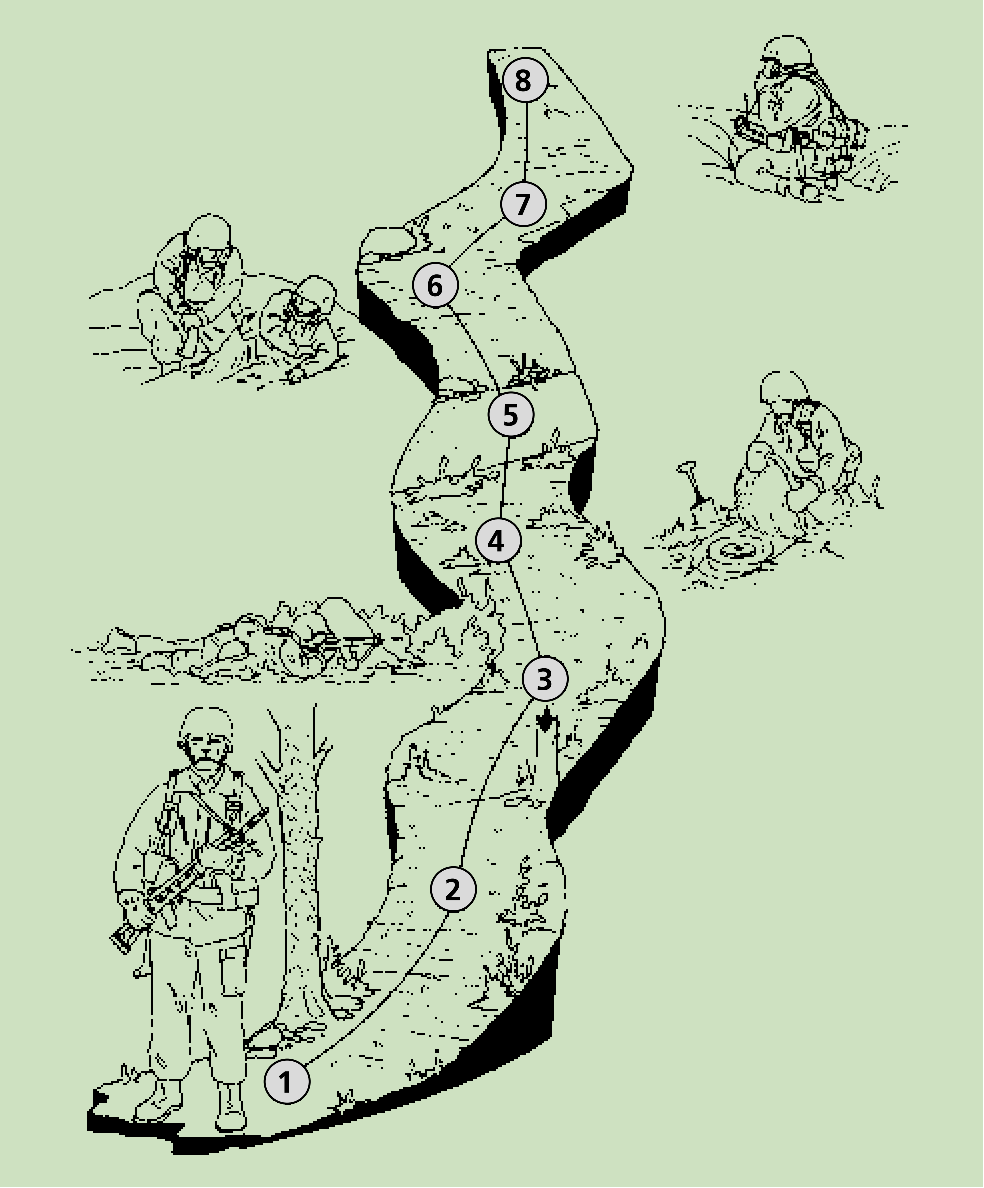
5. Points for the basic military exam and reward system

The maximum number of points in the basic military exam is 30 points

Not approved 0 – 9
Completed 10 – 17
Completed well 18 – 24
Completed excellently 25 – 30

The basic military exam and especially the detailed arrangements of the practical test(s) are planned in the brigades as required by the training objectives. The brigade adjusts the detailed arrangements according to local circumstances.

Excellent completion of the basic military exam is rewarded with exemplary conduct leave!



Example of the combat training track included in the basic military exam
(combined weapons handling and combat skills test)

1. Inspection of combat equipment and its camouflage
2. Understanding a spoken message
3. Preparing for action within range of chemical weapons
4. Preparation and securing of assault rifle
5. Understanding the task and knowing the challenge and proper response
6. Correct way of carrying weapons
7. Advancing under enemy threat
8. Selecting the correct route, mode of advance and terrain
9. Advancing under direct fire
10. Use of fire and movement
11. Advancing and action within range of indirect fire
12. Selecting fighting position
13. Firing at different distances
14. Use of basic battle sight and battle sight
15. Use of hand grenade
16. Setting an anti-tank mine
17. Handling a light anti-tank weapon
18. Action within range of chemical weapons
19. Delivering a spoken message
20. Giving first aid
21. Setting up a signal device for use
22. Handling a light machine gun
23. Acting as a sentry

Conscript's training selection form

Defence Forces **Conscript's training selection form** **Annex 1**

Stamp

DCPDIV doc. Conscript selections

Company Contingent	Contingent	Family name and given names (underline name used)
Signature of trainee (date and name)		(Finnish) Social security number

Points

Factor affecting selection	**0**	**1**	**2**	**3**	**4**
1. Basic test 1 (1-3 = 0, 4 = 1, 5-6 = 2, 7-8 = 3, 9 = 4)		nco			
2. Basic test 2 (0-1 = 0, 2 = 1, 3 = 2, 4-5 = 3, 6 = 4)		nco			
3. Fitness index SAP: (PFI ≤ 0,99 = 0, PFI 1,00 - 1,49 = 1, PFI 1,50 - 2,49 = 2, PFI 2,50 - 3,49 = 3, PFI ≥ 3,50 = 4)					
4. Basic military course (marches, shooting, soldier's exam) not approved = 0, passable/satisfactory = 1, good = 2, very good/excellent = 3)		nco			
5. Suitability for wartime leader tasks, evaluation by staff (unsuitable = 0, poorly suitable = 1, suitable = 2, very suitable = 3, exceptionally suitable = 4)			nco		
6. Suitability for wartime leader tasks, evaluation by conscript superiors (unsuitable = 0, poorly suitable = 1, suitable = 2)					
7. Evaluation by peers (1-2.99 = 0, 3-4.99 = 1, 5-6.99 = 2, 7-9 = 3)					
8. Leadership task track (points 10% = 0, 20% = 1, 40% = 2, 20% = 3, 10% = 4)					
9. Motivation for learning and performing well Trainee wants to learn and perform well during service (not at all = 0, poorly = 1, satisfactorily = 2, well = 3, excellently = 4)			nco		
10. Willingness to undergo leadership training (not willing = 0, not opposed = 1, willing to undergo conscript leadership training = 2, very willing to undergo conscript leadership training = 3, very willing to undergo conscript leadership training and willing to pursue a military career = 4)					
Required special characteristics, knowledge or skills (e.g. stereoscopic vision, driving license etc.)					

nco = minimum requirement for nco course **Total amount of points (x)**

Recommendation for further training

Course/training branch	yes	placement	Programme/training branch/task
- NCO course			
- Rank and file training branch			

X) If the leadership selection ends in equal points, the order of selection is determined according to the total sum of points for criteria 5, 6, 7 and 8.

Signature

Place and time	Task, rank and name

At the end of the basic training period, each conscript is evaluated and the result is entered in the training selection form. The evaluation is made by the platoon's instructors, who present the evaluations along with their reasons to the company commander. The evaluation is based on the basic tests, skills shown in training, results of the basic military exam and fitness index. Suitability for leadership training is evaluated based on the results of peer evaluation and evaluations by conscript superiors and staff. In leadership training selections, also the individual's own willingness is taken into consideration. All training selections are made based on the evaluation. The evaluation is supplemented and repeated when students are selected for the reserve officer course after phase 1 of the NCO course.

2.5 Special capabilities training period

The objective of the special capabilities training period is that conscripts serving 165, 255 and 347 days who are to be placed in wartime rank and file tasks, possess the basic knowledge and skills needed by a soldier in their own service, branch and training branch. The training provides the skills that soldiers need in order to function as a part of a patrol, section and platoon or equivalent unit in tasks corresponding with their branch of training.

The soldier's special capabilities training period lasts 9 weeks. Training focuses on learning the most important wartime skills of one's own training branch. The focal point of training is courses required for wartime tasks and special training for soldiers of the different services and branches.

Soldiers are trained so that they know the tasks of the wartime unit they are placed in.

During the special capabilities training period, soldiers participate in the live firing exercises required for their section or crew-served weapon. They also participate in the live firing exercises determined by their own branch of service and training. During the special capabilities training period, soldiers undergo the soldier's training branch exam in accordance with their branch of training.

After the 8-week basic training period **specialists** are trained on the special courses of different branches. Special courses can begin already during the basic training phase, if the local conditions and training arrangements absolutely require it. The deadline for the completion of courses is usually the transfer to the reserve of conscripts serving 255 days of the previous contingent.

On these courses, specialists learn practical knowledge and skills needed for knowing the functions of their wartime rank and file duties as well as of such peacetime supply, logistics and surveillance tasks in garrisons that require special training. Courses include an exam and training includes practice in a demanding task.

Irrespective of their speciality, specialists must know the skills of a solider in order for them to be capable of infantry combat in defending the area of mobilisation or responsibility of their training branch's unit and in making counter attacks. During the special capabilities and unit training period, if the special course has begun already during the basic training phase, a 3-week repetition period is arranged on issues covered during the basic training phase.

The training in the special training and unit training phase of rank and file serving 255 days is planned with consideration on garrison obligations, wartime task requirements as well as combat and live firing exercises.

The specialists' conscript leaders change half way through the special capabilities training period. Specialists are primarily placed with their own contingent in the wartime unit, even though they are not transferred to the reserve at the same time as the unit's soldiers.

When the others have mustered out, specialists deepen their know-how, achieve their qualification certificates and support the training of the following contingent.

A conscript belonging to the rank and file, who has shown particular capabilities and suitability during the special capabilities training period, can in exceptional cases undergo the NCO or reserve officer course together with the following contingent.

Some specialists serve 347 days. These are e.g. most drivers, whose qualification certificates require long practical training. Specialists serving 347 days participate in the exercises and live firing exercises of their own contingent as well as the following one.

2.6 Leadership and instructor training

Purpose, end goal and objective

Leadership and instructor training is the starting point for development and growth as a leader. This development spans the entire period of liability for military service. Those in conscript leadership training are given the basics and positive attitude they will need to develop as leaders once they are in the Reserve. The **end goal** of the leadership and instructor training programme is that leaders can start to train and lead their own unit in refresher exercises and exceptional circumstances using their own initiative.

The **objective** of leadership training is that leaders have mastered the principles of leading their unit as well as the principles for further developing themselves according to the deep leadership model.

The **objective** of instructor training is that leaders know how to develop their own unit's capability to take action and perform at the level required for the unit's task.

Leadership training in the Defence Forces can be said to predict financial success in working life. According to a survey done on more than one hundred thousand men born in 1955, 1960 and 1965, in their adult life, 70% of reserve officers and 34 % of reserve NCOs were placed in the highest income quarter. Of those who had undergone only rank and file training only 15 % reached the highest income quarter.

Leadership training is described in its entirety in the book Leadership Training in the Defence Forces (2000). The basics and practices of education and training skills are described in the Instructor's Guide (2007). These sources are used in the basic and advanced training of all military leaders as well as in complementing studies. The basics of leadership skills are found in the Leader's Handbook (Johtajan käsikirja, JOKÄ), which is meant for use in leadership and instructor training for the Defence Forces' personnel and it is also used as teaching material in support of management and workplace interaction coaching. The Leader's Handbook also aims to promote the practice of giving credit for conscript training in civilian studies and using know-how acquired during military service elsewhere in society.

Leadership and instructor training programme

Leadership and instructor training for conscripts, an entity worth 30 credits, is carried out during NCO and reserve officer training as well as during the leadership phase. This entity is called the leadership and instructor training programme. The programme connects leadership and instructor training for conscripts with the Finnish educational system.

The leadership training programme is made up of four basic elements. The first element is scientific research, which guarantees the credibility and reliability of the programme. The second element is information included in the programme, i.e. the deep leadership model and the framework supporting it. The third element is the programme's methodology, i.e. the training practises according to which critical constructive concept of learning is applied to leadership training. The fourth element is learning and training in leadership tasks. At its core lies the systematic use of feedback.

The programme's 30-credit framework is laid out in the Leader's military service certificate. The implementation of the teaching plan is monitored individually during the training. Monitoring is realised using both the information system and the trainee's own study book and leadership file.

Leadership file and study book

The leadership file is a personal record of the conscript leader in training, which contains material and feedback concerning the leadership training. The leadership file helps the trainees to follow their own learning process. The material in the leadership file reinforces and supplements the credits recorded in the military service certificate along with their verification.

The trainees themselves are responsible for maintaining the leadership file. The person responsible for the unit's leadership and instructor training monitors the correct use of the file. The leadership file contains all leadership and instructor training performance evaluation forms, periodical feedback and leadership profiles, analyses and minutes from team meetings. The leadership file includes a development plan. Optional information and memorandums relating to leadership training can also be included in the leadership file.

The leadership file helps trainees to identify their own strengths and development needs as well as to set new development goals for themselves. With the help of follow-up and feedback, trainees are steered towards the realisation that the development of leadership behaviour is dependent on one's own effort, sense of responsibility, spirit of enterprise and practical way of learning.

The time used for assignments included in the leadership training programme is noted in the study book - from initial guidelines to feedback. The trainees' own observations concerning performance are also recorded in the study book. Based on this data, the overall number of credits is calculated, supplementary data is entered into the information system and the leader's military service certificate is printed out at the end of military service. By signing the military service certificate, the company commander confirms the credits recorded in it.

The capability for self-steering and responsibility for one's own development, which is the objective of leadership training, require trainees to have initiative and systematically follow up and record feedback. The severe conditions of wartime and especially combat require leaders to be independent and take initiative.

Feedback system

The feedback system of leadership and instructor training includes

- immediate feedback during leadership and instructor tasks
- feedback discussions and written evaluations using the standard form after completed leadership and instructor tasks
- leadership and interaction skill profiles
- periodical feedback given at the end of training periods, which make use of the leadership and interaction skill profile
- development plans.

The objective of the feedback system is to support development as a leader and instructor. The efficient use of feedback in training supports the achievement of learning objectives. As an educator of leaders, the Defence Forces have the possibility of realising training in actual leadership tasks that require responsibility.

Feedback coming from one's own operational environment that is credible, to the point and encouraging, is an essential prerequisite for development as a leader. Immediate feedback is given at the end of individual exercises and training events. This is done in such a way that trainees are able to analyse and classify their performance. Immediate feedback is documented to a sufficient extent in the leadership file using standardised forms that the trainees themselves complete in advance. Immediate feedback is given at the end of individual exercises and training events. This is done in such a way that trainees are able to analyse and classify their performance. Immediate

feedback must be documented to a sufficient extent in the leadership file using standardised forms that the trainees themselves complete in advance.

The questionnaire on leadership and interaction behaviour produces a leadership or interaction skill profile for the trainee. The questionnaire on leadership behaviour is primarily used. The questionnaire on interaction behaviour is used if the trainee has no direct subordinates. The conscript leader's subordinates, peers, superiors, instructors and the conscript leader himself/herself complete the questionnaire.
Periodical feedback discussions are longer feedback discussions between the instructor and the conscript leader held during the leadership phase. The periodical feedback discussion is carried out at least two times during the leadership phase. The leadership or interaction skill profile is used as an aid in periodical feedback discussions. The final periodical feedback discussion is at the same time the conscript leader's final feedback, which is transferred to the leader's military service certificate. In periodical feedback discussions, the aim of using immediate feedback and the leadership profile is to find strengths and development needs in leadership behaviour, to compare results with earlier observations and to define development needs in the long term.

The objective of the development plan is to support growth as a leader as well as the development of the trainee's ability to act. Drawing up the personal development plan begins at the start of the NCO course and it is added to during service through assignments involving individual thinking, analysis of feedback and operational environment as well as through team work. The development plan includes a leader's action plan that is drawn up each month during the training. Based on the final periodical feedback discussion, a development plan is drawn up with emphasis on development in the reserve.

Team work in leadership training

Teams consisting of conscript leaders are formed according to training composition. The teams analyse training results achieved and observations relating to leadership 1-2 times per month.

In the beginning, team work takes place under the leadership of the unit commander or another experienced instructor. The work follows normal meeting techniques.

The results of team work and the performance of conscript leaders is discussed in connection with weekly briefings held by the commanding officer. The possibility of for one's own part influencing the routines of the company, increases the conscript leaders' commitment to their tasks. Team work also increases cohesion among the company's leaders and teaches both trainees and instructors to assess the effectiveness and goal-orientedness of activities. From the point of view of developing as a leader, it is important that conscript leaders learn to share their own leadership experiences with their peers.

When is a military leader successful?

Results achieved are an important tool for analysing success as a leader. It is necessary to be able to define results correctly and in a sufficiently comprehensive manner. From the point of view of leadership training, training results are assessed especially using the following effectiveness criteria:

- leadership behaviour generates trust between the leader and unit and strengthens this trust
- leadership behaviour promotes the generation of group cohesion
- leadership behaviour strengthens the unit's faith in its possibilities and in the efficiency of its own weapons systems in combat as well as

- values and attitudes that are internalised support the concept of justification of defending one's country.

By using this method of assessment the concrete results achieved are included in the development of the organisation's performance capability and viability. Only a unit that is coherent and trusts its leaders is capable of extreme efforts in wartime.

What is leadership training good for?

Employers and educational establishments are paying more and more attention to leadership training received in the Defence Forces. You can be prepared for the fact that you will need your leadership certificate and leadership file in many instances in civilian life. Many educational institutions recognise credits gained in leadership training. However, the educational institution itself determines on a case-by-case basis if credits are recognised. The best place for getting information on the recognition of credits is directly from the educational establishment in question. Employers will need the military service certificate and especially the leadership profile included in it. The leadership profile shows how well you have succeeded as a leader, but above all it shows your strengths as a leader and the areas that you need to develop. It also shows that you are aware of your situation and that you strive to systematically further develop yourself.

You are in fact its greatest beneficiary. Growing as a person, developing as a leader and learning to learn is a great resource that will be of use to you for the rest of your life. From your own and your employer's point of view, the most important thing is that you know where you are and what you aim for as a leader.

In their own free time, conscript leaders also have the possibility of completing eight credits worth of voluntary on-line studies at the National Defence University using the PVMOODLE portal. After successfully finishing the studies, you will receive a certificate of studies completed from the National Defence University.

Training of NCO's



Approximately 20 percent of conscripts are trained as reserve non-commissioned officers (NCOs). Trainees are selected during the basic training period based on capability and suitability (selection form). The number of available training seats varies according to brigade and troop production tasks. However, the aim is to make it possible for those who are capable and willing to undergo training. NCO training includes the NCO course and NCO leadership phase. The **objective** of NCO training is that after having completed their military service, and corresponding to their branch of training, trainees are capable of leading a section-sized unit in combat, they have mastered their own special task and know how to train the unit that is under their command.

The length of the NCO course is 16 weeks. The course comprises two phases, the lengths of which are normally 7 and 9 weeks.

The objective of phase I of the NCO course is that, corresponding to their branch of training, students are familiar with the action of a section-sized unit. The objective of phase II of the NCO course is that after it, students know how to lead and train a section-sized unit corresponding to their branch of training.

NCOs trained for special tasks complete phase I of their own branch's NCO course and phase II during the special NCO course. The length of the NCO leadership phase is 26 weeks. During this time, NCOs are trained as leaders of their

section, or of a unit of similar size, as instructors, or for tasks relating to their own special branch. They also receive advanced and further training. This study phase includes additional leadership and instructor studies as well as a guided leadership and instructor practice phase that amounts to 18 credits.

The led leadership and instructor practice is conducted in such a way that NCOs act as responsible section leaders of the rank and file of the following contingent or in NCO tasks as instructors of their own special field. Practice is steered and monitored. Section leaders receive feedback on their leadership behaviour from their instructors and subordinates. NCO training continues in reserve refresher exercises. After leadership training, NCOs who qualify for higher education can also apply to study at the National Defence University. A conscript who has competed the NCO course and is found to be suitable for training as a reserve officer can be transferred to the reserve officer course with the following contingent. Those accepted into the National Defence University are trained as reserve officers before they begin studies in military science.

Reserve officer training



Approximately 10 percent of conscripts are trained as reserve officers. Reserve officer trainees are selected during the first phase of the NCO course based on capability and suitability (selection form). Reserve officer training includes the reserve officer course and reserve officer leadership phase with its special courses. The **objective** of reserve officer training is that after having completed their military service, and corresponding to their branch of training, trainees have mastered leading the activities and combat of a platoon/equivalent unit, or their own special task, and that they know how to train the unit under their command and possess the general basic knowledge required of a reserve officer.

The **objective** of reserve officer course is that after having completed the course, and corresponding to their branch of training, trainees have mastered the basics of leading the activities and combat of a platoon/equivalent-sized unit, or their own special task, and that they know how to train the unit under their command and possess the general basic knowledge required of a reserve officer.

The length of the reserve officer course is 14 weeks. During the course, officer students learn the basics of leading a platoon or equivalent-sized unit in wartime. The reserve officers' leadership phase lasts 21 weeks. During this time, officer candidates are trained as leaders of their platoon, or of a unit of similar size, as instructors, or for tasks relating to their own special branch. They also receive advanced and further training. This study phase includes additional leadership and instructor studies as well as a guided leadership and instructor practice phase that amounts to 18 credits.

The led leadership and instructor practice is carried out in such a way that officer candidates act as leaders and instructors of platoon-sized units made up of rank and file of the next contingent or carry out special branch-specific tasks of an officer candidate. Practice is steered and monitored. Officer candidates receive feedback on their leadership behaviour from their instructors and subordinates.

Wartime training for reserve officers continues in refresher exercises and voluntary exercises. Leadership training, experience and practice brought by exercises and civilian tasks shape the Finnish reserve officer.

2.7 Unit training period

The **objective** of the unit training period is that after it, the trainees have mastered the tasks that accord with their placement and are capable of fulfilling the set capability requirements.

The unit training period lasts approximately 7 weeks. This period sees the culmination of functionality and skills acquired during military service, including the most important military and live fire exercises.

Conscripts are assembled and placed in the wartime unit that is produced at the end of the unit training period. Units are trained in their wartime composition, which can also include an over strength belonging to the unit.

In the unit training period, the unit's level of training is assessed in the combat training and live fire exercises.

Military service certificate and personal appraisal

All conscripts receive a certificate of service and a personal appraisal when their service is completed. The military service certificate contains information on the content of the training received, work experience and individual abilities. These documents can be used when applying to study, when applying for a job as well as for assessment of transfer of study credits. In some training branches, the training also produces special certificates of qualification such as driving licenses or diplomas that can be of direct use in civilian life.

Having completed military service is counted as work experience and credits gained during service can give additional points when applying to study or some or all credits can be approved for transfer in continued studies.

Those who have undergone training for rank and file or leadership training receive their military service certificate and personal appraisal as separate forms. These are documents that you should save for later use, in the same way as other school and work references. You can influence your own future and promote your own professional career by the choices you make relating to military service and by successfully completing your service.

Something to think about

Think about what are your goals are in general in relation to military service and the basic training period.

» *Do you want a soldier's training, special training for rank and file or NCO or reserve officer training?*

» *What special skills do you have to offer the Defence Forces and what can the Defence Forces offer you?*

» *What does your goal require of you during the basic training period?*

Military service certificate and personal appraisal for rank and file

Puolustusvoimat
The Finnish Defence Forces

Miehistön palvelustodistus ja henkilöarviointi
Military service certificate and personal appraisal for rank and file

1 (2)

1. Taustatiedot / Background information

Etunimi / First name	Toinen nimi / Second name	Etuliite / Prefix
Sukunimi / Family name		Henkilötunnus / Social security
Sotilasarvo / Military rank		Palvelusaika / Service period
Perusyksikkö / Company	Joukkoyksikkö / Battalion	Joukko-osasto (vast) / Brigade (equiv)

2. Tehtävä, johon koulutettu / Task, training and courses completed

Suoritetut kurssit / Courses completed

	Kurssin nimi / Name of course	Yleisarvosana / Grade	ov/cr
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Muu koulutus / Other training

Koulutetut aiheet / Subjects trained

1. Erikoiskoulutus (puolustushaaran, aselajin ja koulutushaaran erikoiskoulutus vast)
Special training (special training of service, branch and training branch, equiv):

		ov/cr
1.1		
1.2		
1.3		
1.4		
1.5		
1.6		
1.7		

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Puolustusvoimat
The Finnish Defence Forces

Miehistön palvelustodistus ja henkilöarviointi
Military service certificate and personal appraisal for rank and file

2 (2)

3. Henkilöarviointi / Personal appraisal

Arviointikohde / Subject of evaluation (5 = Erinomainen / Excellent, 4 = Kiitettävä / Very good, 3 = Hyvä / Good, 2 = Tyydyttävä / Satisfactory, 1 = Välttävä / Poor)

Käytös / Conduct 3= Täyttää varusmiespalveluksen edellyttämät käyttäytymisnormit 3= Fulfills the conduct norms required in military service	
Itsenäisyys / Independence 3= Toimii tehtävissään päämäärähakuisesti ja aktiivisesti 3= Acts in a goal-oriented and active way in his/her tasks	
Aloitekyky / Ability to take initiative 3= Esittää asetetun tavoitteen saavuttamista edesauttavia ratkaisuvaihtoehtoja 3= Presents alternative solutions in order to reach the goals that have been set	
Yhteistyökyky / Ability to cooperate 3= Saavuttaa tavoitteet yhdessä muiden kanssa 3= Reaches goals in cooperation with others	
Ongelmanratkaisukyky / Ability to solve problems 3= Pyrkii itsenäiseen ongelmanratkaisuun 3= Tries to solve problems independently	
Vastuuntunto ja luotettavuus / Sense of responsibility and trustworthiness 3= On halu ja kyky ottaa toiminnan edellyttämä vastuu 3= Is ready and willing to assume the responsibility that the activities require	
Kestävyys / Endurance 3= Säilyttää itsehillintänsä sekä suoriutuu tehtävistään toimiessaan fyysisen ja psyykkisen paineen alaisena 3= Maintains self control and completes tasks under physical and psychological stress	
Tiedot ja taidot / Knowledge and skills 3= On saavuttanut koulutustavoitteet 3= Has reached the training objectives	

4. Yleisarviointi, (muodostuu henkilöarvioinnin keskiarvosta) **General assessment, (average of the personal appraisal)**	

5. Fyysinen toimintakyky / Physical capability

Fyysinen kunto (HKI) (Kuntoindeksi:hylätty/heikko, välttävä, tyydyttävä, hyvä, kiitettävä, erinomainen) / Physical fitness (PFI) (Fitness index: failed/weak, poor, satisfactory, good, very good, excellent)	
Lihaskuntoindeksi (LKI) (hylätty/heikko, välttävä, tyydyttävä, hyvä, kiitettävä,erinomainen) / Muscle fitness index (MFI) (failed/weak, poor, satisfactory, good, very good, excellent)	
12-minuutin juoksutesti (metriä/, hylätty/heikko,välttävä, tyydyttävä, hyvä, kiitettävä,erinomainen) / 12-minute running test (metres/failed, weak, poor, satisfactory, good, very good, excellent)	/

6. Lisätietoja / Additional information

7. Päiväys ja allekirjoitus / Date and signature

Paikka ja aika / Place and date	Todistuksen antaja, arvo ja nimi / Certificate given by, rank and name	Leima / Stamp

Leader's military service certificate and personal appraisal

Puolustusvoimat
The Finnish Defence Forces

Johtajan palvelustodistus ja henkilöarviointi
Leader's military service certificate and personal appraisal

1 (3)

1. Taustatiedot / Background information

Etunimi / First name	Toinen nimi / Second name	Etuliite / Prefix
Sukunimi / Family name		Henkilötunnus/Social security number
Sotilasarvo / Military rank		Palvelusaika / Service period
Perusyksikkö / Company	Joukkoyksikkö / Battalion	Joukko-osasto (vast) / Brigade (equiv)

2. Tehtävä, koulutus ja suoritetut kurssit / Task, training and courses completed

Tehtävä, johon koulutettu / Task trained for

Johtamis- ja kouluttamistaidon opinnot jotka voidaan esittää hyväksiluettavaksi jatko-opinnoissa / Leadership and instruction skills studies that credit can be given for in continued studies

Johtaja- ja kouluttajakoulutusohjelma / Training programme for leaders and instructors	op/cr	max
2.1 Johtamisen ja kouluttamisen perusteet / Basics in leadership and instruction skills		1 (30)
2.2 Johtamistaidon peruskurssi / Basic course in leadership		1,5 (40)
2.3 Koulutustaidon peruskurssi / Basic course in instruction skills		1,5 (36)
2.4 Johtamis- ja koulutustaidon harjoittelu / Practice in leadership and instruction skills		2 (56)
2.5 Koulutustaidon jatkokurssi 1 / Continuation course in instruction skills 1		1 (26)
2.6 Koulutustaidon jatkokurssi 2A tai 2B / Continuation course in instruction skills 2A or 2B		1 (26)
2.7 Koulutustaidon jatkokurssi 3 / Continuation course in instruction skills 3		1 (26)
2.8 Koulutustaidon harjoittelu / Instruction skills practice		9 (240)
2.9 Tiimityöskentely / Team work		1,5 (40)
2.10 Johtamistaidon jatkokurssi / Continuation course in leadership		1,5 (40)
2.11 Johtamiskäyttäytymisen kehittäminen / Development of leadership behaviour		9 (240)

Muu koulutus (erillinen selvitys) / Other studies (separate report)		op/cr
2.12		

Suoritetut kurssit / Courses completed

Kurssin nimi / Name of course	Pisteet Points	Kurssin yleisarvosana Overall course grade	ov/cr

Muu koulutus / Other training

Kurssin nimi / Name of course	ov/cr

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2 (3)

3. Henkilöarviointi (kouluttajien arvioimana) / Personal appraisal (as assessed by instructors)

Arviointikohde / Subject of evaluation (5 = Erinomainen / Excellent, 4 = Kiitettävä / Very good, 3 = Hyvä / Good, 2 = Tyydyttävä / Satisfactory, 1 = Välttävä / Poor)

Käytös / Conduct 3= Täyttää varusmiespalveluksen edellyttämät käyttäytymisnormit / Fulfills the conduct norms required in military service	
Itsenäisyys / Independence 3= Toimii tehtävissään päämäärähakuisesti ja aktiivisesti / Acts in a goal-oriented and active way in his/her tasks	
Aloitekyky / Ability to take initiative 3= Esittää asetetun tavoitteen saavuttamista edesauttavia ratkaisuvaihtoehtoja 3= Presents alternative solutions in order to reach the goals that have been set	
Yhteistyökyky / Ability to cooperate 3= Saavuttaa tavoitteet yhdessä muiden kanssa / Reaches goals in cooperation with others	
Ongelmanratkaisukyky / Ability to solve problems 3= Pyrkii itsenäiseen ongelmanratkaisuun 3= Tries to solve problems independently	
Vastuuntunto ja luotettavuus / Sense of responsibility and trustworthiness 3= On halu ja kyky ottaa toiminnan edellyttämä vastuu 3= Is ready and willing to assume the responsibility that the activities require	
Kestävyys / Endurance 3= Säilyttää itsehillintänsä sekä suoriutuu tehtävistään toimiessaan fyysisen ja psyykkisen paineen alaisena 3= Maintains self control and completes tasks under physical and psychological stress	
Tiedot ja taidot / Knowledge and skills 3= On saavuttanut koulutustavoitteet 3= Has reached the training objectives	

4. Johtaja-arviointi / Assessment of leadership quality

Johtaja-arviointi perustuu sekä johtamis- ja vuorovaikutuskäyttäytymisen että saavutettujen koulutustulosten arviointiin. Johtamis- ja vuorovaikutuskäyttäytymisen arviointi on varusmiesjohtajan loppupalautteen **kokonaistulos** eri palautelähteistä. Koulutustulosten arvioinnin perusteena ovat **havaitut ja mitatut sodan ajan joukon suoritukset** erityisesti palveluksen loppuvaiheessa. The assessment of leadership quality is based on the evaluation of both leadership and interaction behaviour and training results achieved. The assessment of leadership and interaction behaviour is the **overall result** of the conscript leader's final feedback from different feedback sources. **The assessment of training results is based on the observed and measured performance of the wartime unit especially at the end of the service period.**

Johtajaprofiili (Syväjohtamisen kysymyssarjasta johtajakauden lopussa)
Leadership profile (From the deep leadership questionnaire at the end of the leadership phase)

Arviointiasteikko jatkuva välillä 4 - 0 / Assessment scale 4 - 0	Arvioiden keskiarvo / Average of assessments	Sanallinen arvio / Verbal assessment	Yksikön keskiarvo / Unit average
4.1 Ammattitaito / Professional skill			
4.2 Luottamus (Luottamuksen rakentaminen) / Trustworthiness (Building of trustworthiness)			
4.3 Innostus (Inspiroiva tapa motivoida) / Enthusiasm (Inspiring way of motivating others)			
4.4 Oppiminen (Älyllinen stimulointi) / Learning (Intellectual stimulation)			
4.5 Arvostus (Ihmisen yksilöllinen kohtaaminen) / Respect (How individual is met)			
Johtajaindeksi (= keskiarvo kohdista 4.1-4.5) / Leadership index (= average of 4.1-4.5)			
4.6 Kontrolloiva johtaminen, kontrolloivuus vuorovaikutuksessa / Controlling leadership, need for control in interaction			
4.7 Passiivinen johtaminen, passiivisuus vuorovaikutuksessa / Passive leadership, passiveness in interaction			
4.8 Tehokkuus / Effectiveness			
4.9 Tyytyväisyys / Satisfaction			
4.10 Yrittämisen halu / / Willingness to try			

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Koulutustuloksiin perustuva johtajan henkilöarviointi (Kouluttajien arvioimina) /
Assessment based on leader's training results (as assessed by instructors)

Arviointikohde / Subject of evaluation (5 = Erinomainen / Excellent, 4 = Kiitettävä / Very good, 3 = Hyvä / Good, 2 = Tyydyttävä / Satisfactory, 1 = Välttävä / Poor)
Kouluttajien arvioimina / Assessment made by instructors

4.11 Asenne sotilaskoulutukseen yleensä / Attitude towards military training in general	
4.12 Kehittyminen varusmiesjohtajakaudella / Development during conscript leader period	
4.13 Suhtautuminen palautteeseen / Attitude towards feedback	
4.14 Palautteesta oppiminen / Learning from feedback	
4.15 Joukon toiminta koulutustilanteissa / How unit acts in training situations	
4.16 Joukon henki ja kiinteys / Team spirit and unit's sense of togetherness	
4.17 Joukon arvioitu suorituskyky sodan ajan ensimmäisessä tehtävässä / Estimated capability of the unit in its first wartime task	
5. Yleisarviointi (Henkilöarvioinnin, johtaja-arvioinnin ja koulutusarvioinnin keskiarvo) / General assessment (Average of personal appraisal, leadership assessment and training assessment)	

6. Fyysinen toimintakyky / Physical capability

Fyysinen kunto (HKI) (Kuntoindeksi:hylätty/heikko,välttävä, tyydyttävä, hyvä, kiitettävä,erinomainen) / Physical fitness (PFI) (Fitness index: failed/weak, poor, satisfactory, good, very good, excellent)	
Lihaskuntoindeksi (LKI hylätty/heikko,välttävä, tyydyttävä, hyvä, kiitettävä,erinomainen) / Muscle fitness index (MFI) (failed/weak, poor, satisfactory, good, very good, excellent)	
12-minuutin juoksutesti (metriä/, hylätty/heikko,välttävä, tyydyttävä, hyvä, kiitettävä,erinomainen) / 12-minute running test (metres/failed, weak, poor, satisfactory, good, very good, excellent)	/

7. Lisätietoja / Additional information

Vahvuudet johtajana ja muut huomiot / Strengths as a leader and other observations

8. Päiväys ja allekirjoitus / Date and signature

Todistuksen antaja, arvo ja nimi / Certificate given by, rank and name

Paikka ja aika / Place and

Leima / Stamp

3 General military training



This chapter presents soldierly conduct. Conduct includes among other things overall good manners, polite form of address and greeting, showing respect and reporting. This chapter also presents the rights and obligations of conscripts. These are ordered in the General Service Regulation.

The **objective** of military training is that the soldier

1. knows how to behave as a soldier
2. is familiar with the rights and obligations of a soldier as well as the importance of fulfilling a given task
3. knows how to perform the most important close order movements on foot and understands the importance of close order
4. is aware of the deep leadership model and the basics of the Defence Forces' leadership and instructor training, and of the central principles for giving feedback and
5. knows how to work as assistant to the duty officer.

3.1 Division of military personnel

According to the General Service Regulation, military personnel are divided into officers, non-commissioned officers and rank and file. In addition to this, there are also many civilians working in the Defence Forces. They have a wartime task and those liable for military service also have a military rank in the reserve.

At the beginning of military service, the term recruit is used for conscripts. Depending on their service, recruits are appointed private/seaman apprentice/airman by the brigade commander during the basic training period.

The following military ranks can be used for privates depending on which service and branch they are serving in

- jaeger in the infantry and coastal units,
- gunner in the artillery and coastal units,
- sapper in the engineers and coastal units,
- signalman or signaller in the signal and coastal units,
- driver in the motorised units and
- airman in the Air Force.

The following unit-specific military ranks can be used for the position of the aforementioned ranks, e.g.: guard jaeger, armoured jaeger, armour crewman, dragoon or coastal jaeger.

Insignia of rank

The insignia on the military uniform shows the military or service rank of a person within the military organisation. The insignia are presented according to service in the annexes at the end of the guide.

3.2 Military discipline and order

Military discipline means precisely complying with commands and carrying out orders that have been given. Discipline is at its best when the individual's behaviour is based on sufficient self-discipline and the unit's activities are based on a common will to carry out the tasks given to it. Behind this lies each individual's self-discipline and will to take the initiative to do their best in their own task and without reservation to trust their superiors and be led by them.

Society has assigned soldiers the task of being users of armed force. For this reason, all soldiers are required to be especially disciplined. The implementation of military order is supported by legal provisions regarding punishment in the Criminal Code.

In war, all forces are joined in order to reach a common objective. Soldiers must be able to rely on the fact that each Finnish soldier understands his/her own importance and the effect of his/her actions. Negligence or failure in war in one place may result in a loss of human lives in another. For this reason, tasks must always be fulfilled. Even if your own life is not depending on it, someone else's might be.

» *In combat, discipline is seen in that all soldiers carry out their tasks as long as they have the power to do so, and do not under any circumstances abandon their unit.*

Some characteristics of a good company-level unit

Think about how you can help create and maintain good team spirit in your section and platoon in your daily service. How are the values of the Defence Forces seen in practice?

1. The importance of rules and regulations is understood and they are upheld
Activities are in compliance with stipulations of the general service regulation, in-service safety regulations and safety precautions. There are clear rules concerning behaviour. Measures are taken immediately if rules are broken, People can count on each other.

2. Responsibility for one's self, one's equipment and one's own activities is recognised
Everyone is responsible for their own activities and for what they do and fail to do. Everyone takes care of their own cleanliness and equipment as well as materiel that they are responsible for. Equipment is not lost or misplaced. Equipment is serviced immediately after it has been used and its condition is checked regularly.

3. Maintaining cleanliness and order
Maintaining cleanliness and order is a prerequisite for in-service safety in both garrisons and the terrain. Uncleanliness and disorder are often partly responsible for dangerous situations and accidents such as e.g. falling and slipping.

By maintaining cleanliness and good order we can improve fire safety and contribute to a pleasant environment.

Cleanliness and good order is obtained by clearing away all unnecessary things, finding a place to store things that must be stored, arranging a place for consumables and agreeing on procedures (everyone returns things to their place after use) and making sure that trash and waste is disposed in an appropriate way.

Everyone takes care of their own equipment and training materiel, these are either in use or stored. Equipment is kept in order in transport crates, when loaded on vehicles or in storage. In addition to this, everyone must contribute to keeping shared facilities clean and in order (accommodation, classrooms, etc.).

4. Punctuality and good behaviour is maintained
Units form up punctually at the ordered time. Movement and behaviour is brisk. Training lessons begin and end on time. Bearing is military and in accordance with good manners. Language usage is manner-of-fact and polite and does not offend anyone.

» *If you are one minute late while a company of 120 people wait, a total amount of two man hours of mutual time is wasted.*

5. Fellow servicemen and women are supported and good team spirit is created
Being part of a company-level unit feels safe. Everyone is part of the same group. As individuals, everyone will do their best to complete the unit's tasks and reach its goals. You must set the good of the unit before your own. Unit members support each other and will help each other without having to ask for help.

6. Leadership follows the principles of deep leadership
Leadership is based on a notion of encouraging individuals to grow/develop. Good military leadership rests of four cornerstones. These are building trust between the leader and those who are led (trust), the leaders' inspiring way of motivating (enthusiasm), the intellectual stimulation of subordinates (learning) and treating people like individuals (respect).

» *A superior must treat his subordinates fairly and he must treat them equally. He must look after their well-being, find out what their wishes are, advise and guide them and strive to serve as an inspiring and good example. Or to put it more briefly: he must serve as an inspiring and encouraging example.*

7. Everything is done for a reason
Training is founded on wartime conditions and tasks and upon the requirements that follow from these conditions. Everybody knows the task they are being trained for and in which unit they will be allocated. The desired outcome is known by everyone.

8. Training focuses on learning the knowledge and skills that are essential in wartime conditions
Everything you do in training will focus on what is essential in terms of training objectives and a soldier's performance requirements. Everybody understands why things are done as they were agreed upon and on what is most important in each phase.

9. The learning environment is positive
People prepare for the upcoming lesson by familiarising themselves with the tropic beforehand from the daily or weekly programme and by completing the preparatory tasks. People actively take part in the teaching and learning is interactive.

Instructors are given constructive feedback and feedback is welcomed. The purpose of heavy training is also appreciated and any measures

or tasks related to it are completed well and diligently. Those in training understand how the information and skills acquired in training are useful in life after military service.

10. The organisation also learns
Activities are based on new information and recent experiences. Participants are encouraged to give it a go. You are allowed to make mistakes during exercises, as you also learn from them. You evaluate and develop your actions according to the feedback that you receive. You can submit ideas and suggestions on how things could be done better. Teaching is developed by drawing on past experiences.

» *Ask if you are not sure. If you have a better idea, speak up. The only stupid question is a question left unasked.*

3.3 How a soldier should behave and good manners

» *A soldier should be polite and show good manners as well as behave towards his superior, peers and subordinates in a manner corresponding with his position. All forms of harassment or bullying are forbidden!*

Taking others into consideration should be the starting point of any activity you engage in. With his behaviour, an individual soldier portrays a certain image of himself, his company, his battalion and of the Defence Forces in general. Good behaviour is polite and beneficial in working life and leisure time activities. Good manners are especially important in a military organisation where everything is done in cooperation and as a member of a group.

Below are the most important things to remember as a soldier.

Greeting people
Greet your friends and acquaintances. If someone greets you, always greet them back. Greet everyone when you join a group of people. It is also polite to greet any soldier or member of the Finnish Defence Forces when you encounter them outside of the garrison.

Addressing someone
Always begin by addressing someone using the more polite form (in Finnish this means using "Te" instead of "Sinä"). If you are having the conversation in Finnish, it is up to the older person in the conversation to start using the more informal form of you "Sinä".

Shaking hands
When you meet someone for the first time, shake their hand, look them in the eye, greet them and present yourself. When you shake someone's hand, remove your glove first.

Introducing yourself
Tell people who you are when you meet them for the first time. Do the same when talking on the phone. Introduce yourself by saying your first and last name in a clear voice.

Presentation
When people do not know each other, introduce them to one another. Present the younger person to the older person and the man to the woman.

Having a conversation
Listen to the person speaking to you and look him or her in the eye. Look at the person you are speaking to. Do not interrupt someone when they are speaking. Take part in the conversation, share your opinions and ask others for theirs. If you have something particular to say, think beforehand as to how you are going to express it. Speak in an audible voice and use standard language. That way people will understand best what you have to say. However, when in a public space, don't speak so loud that you disturb others.

Punctuality
Arrive on time when an event is set to begin. Let people know if you will be late or cannot make it. Excuse yourself politely if you do arrive late.

Thank you ("kiitos") – Please ("ole hyvä") – Excuse me / I apologise ("anteeksi")
Say thank you when you receive or are given something. Thank your host after a meal. It is important to show appreciation for what you receive. Respond when someone says "thank you". Apologise if you have behaved inappropriately.

Be considerate and polite
Stay on the right when walking on the pavement, on the stairs or in confined spaces. As someone walks towards you, pass them on the right. Let people come out from crowded spaces first, before going in yourself. Open doors for the elderly and women. When using public transportation, offer your seat to the elderly.

Using your mobile phone
Turn off your mobile phone in places and situations where you are unable to talk on the phone. If someone has left you a message, listen to it during the break or when the scheduled event is over. When speaking on the phone in a public place or on public transportation, do so without disturbing others. Say what you have to say quickly so that you do not waste other people's time.

Do not litter
Throw waste in the bin. Do not leave litter in the street or in nature. Put waste in the correct recycling bin when such bins are available.

How you dress
The way you dress has a very big influence on how people think of you and whether they will respect you or not. Dress according to the occasion. Keep your clothes clean and neat. When you are outdoors, you must wear a hat. When in uniform, you have to wear a hat at all times unless a particular situation or task requires that you remove your hat. When you go indoors, remove your hat and your coat. When in uniform, you are not allowed to wear civilian attire that can be seen, nor are you allowed to wear jewellery or piercings that could be dangerous during military service. Do not wear your hat while eating.

Do not get drunk while in uniform. Using drugs is strictly prohibited.

The following will make things work smoother when you are part of a big crowd and will reduce everybody's waiting time:

Getting ready for a lesson or other similar event
Always take a seat as much in the front as possible, fill in seats in order of arrival, do not jump the queue. Do not disturb others. Do not start to get ready to leave before the lesson or occasion has actually ended. Prepare things in advance and act quickly when you are first in line.

Moving
Use the right side when walking in a corridor or in the stairs. Let people come out first before you go in yourself.

Meals
When possible, wash your hands before a meal. Only take as much food as you will eat and so that there is enough for everybody. Take off your headgear. Don't start eating until everyone sitting at the same table is ready to start eating. Do not gulp down your food or make loud eating noises. Take your time while eating. Keep your elbows off the table. Clean up after yourself and take your dirty dishes to the collection point.

3.4 Command hierarchy

Command authority is the foundation of efficient and rapid unit action in combat. It clarifies who is responsible for what.

Command authority is the authority to make someone accountable for a certain task by

ordering or commanding them to carry out the task. The authority to command can be permanent or temporary.

For example:

- A company commander has **permanent authority** over his or her subordinates.
- The officer-on-duty in a company has **temporary authority** over all the conscripts in that company.

Anyone who has command authority over a soldier working in the Finnish Defence Forces is a superior. A person that is under someone's command authority is a **subordinate**.

A direct superior is a soldier, who according to the Defence Forces' set command and administrative structure, is immediately above a particular soldier in terms of hierarchy.

This command authority translates as general military authority. This means it applies both while on duty and off duty when those concerned are actively serving in the Finnish Defence Forces. A section commander has general military authority over the soldiers in his section regardless of his or her military rank.

A soldier of the rank and file who has been granted temporary command authority by way of an order given by his superior retains this status as superior over other assigned rank and file only in service matters.

The hierarchy imposed by command authority remains in force even when those concerned are not in uniform. A superior wearing civilian attire must present his Finnish Defence Forces ID card when requested. A superior in civilian clothes must if necessary present his civilian ID card.

A person must carry out orders given by his/her superior with precision. For his/her own legal protection, if a subordinate finds the legality of an order to be questionable, he/she can ask that the order be given in writing. If the order given by the superior is such that the subordinate must clearly break the law or his service duties to carry it out, the subordinate must state this to the person issuing this order. If the superior repeats the order despite this, the subordinate must refuse to carry it out. The subordinate must without delay inform his/her closest direct superior of his/her refusal to carry out the order. If the superior giving the order is his/her closest direct superior, he/she must inform the superior's superior.

Both the superior and subordinate must make sure that the order has been correctly understood. If necessary, an order can be requested in writing. Usually a superior will determine what needs to be done and what the intended final result is. It is possible to add instructions to the order on how the order should be carried out. The subordinate decides how he/she carries out the order.

In military terms, a command is a short order or signal to carry out a previously set action. Do not mix up the concepts of order and command.

A subordinate must repeat a task or order given by a superior if so requested. A subordinate must ask if something remains unclear. An order is always issued for a particular reason and with an intended effect. Think about the purpose of an order. That way, you will be capable of doing the right thing even when circumstances change.

You must confirm that you have carried out a task if you have been given an order to do so. If you have not carried out a task or you know that you cannot carry out the task by the assigned deadline, you must inform your superior about this immediately. This gives your superior time to react and repair the damage.

Addressing someone

Addressing someone is polite and it is considered good manners. When speaking with your superior or when being spoken to by your

superior, you are to assume the position of attention unless your superior tells you to be at ease. You are to look your superior in the eye. Addressing a superior follows the basic principle: address - present - state business.

Soldiers are addressed according to their rank. Lieutenant generals, major generals and brigadier generals are, however, addressed as "general" and similarly vice admirals, rear admirals and commodores are addressed as "admiral". Cadets are addressed as "cadet" regardless of their military rank. If it is obvious that your superior does not recognise you when you are speaking with him, you must say your name.

For example:
HERRA KAPTEENI, ALOKAS TERÄVÄINEN, ... (SIR, CONSCRIPT TERÄVÄINEN)
Once you have properly addressed your superior and presented yourself, you proceed to tell him/her what it is you have to say.

When a subordinate reports for duty, reports his platoon for duty or when he begins a conversation with a superior, he or she is to use the Finnish word "herra" (Sir) followed by the superior's rank. When addressing a female superior, use the Finnish word "rouva" ("Ma'am"). You should not repeat this form of address during the conversation. A superior may address you by your rank, your rank and your surname or by your surname only.

» *During a lesson, when answering a question or when asking a question yourself, you are to stand and address the instructor according to his rank or position and introduce yourself, unless instructed otherwise by the instructor. Lessons, exercises or other events are opened by reporting the participants to the event's commander or instructor.*

If a superior does not know a subordinate, the subordinate must present himself.

For example: The superior asks during a lesson: When did Finland gain its independence? When the superior knows the person answering the question, the person answering says: HERRA LUUTNANTTI ("SIR"), ON 6 DECEMBER 1917. When the superior does not know the person answering the question by name, the person answering the question is to say: HERRA LUUTNANTTI ("SIR"), CONSCRIPT TERÄVÄINEN, ON 6 DECEMBER 1917.

Greeting people

Saluting is polite and it shows that soldiers belong to the same group. Saluting also teaches a soldier to observe his surroundings.

In the garrison or bivouac area, a soldier is to salute all older soldiers from sergeants / equiv. onwards as well as his company's section commanders. A soldier is to return the salute when someone salutes him. When you meet someone outside of the garrison area, greet them according to good manners.

A soldier must always salute an older soldier when he or she comes to talk to the soldier or when the soldier has been summoned by the older soldier. A salute must be returned. Following normal good manners, a verbal expression may be used in greeting.

Saluting and saluting back are done both when standing still and when moving from place to place. You do not, however, salute when you are running. The general rule is also that if a person is more than 50 metres away, you do not salute.

If several soldiers are in a group or moving from place to place and one of them salutes or salutes back, everybody is to do the same. Only the leader of a close-order training detachment salutes and salutes back. Stop saluting only when your superior has stopped saluting by, for instance, lowering his hand.

How to behave when you are in the company commander's office.

1. Think of what you want to say before you say it. Knock on the door or press the doorbell. When you are told to come in, step inside without any delay.
2. Greet the commanding officer at the door. Step towards him and stop when you are about three steps from him. Say what you have come say while standing at attention. You are capable of talking while standing at attention. While this is the default option, your superior may tell you to stand at ease or to sit down.
3. When you have completed your task, salute the commander on the spot from where you are standing. Leave the room immediately.

How to behave conducting business in the unit instructors' office?

1. Knock on the door or press the doorbell. When you are told to come in, step inside without any delay.
2. Salute those present in the room.
3. Go to the person to whom you want to speak. If there are higher ranking soldiers in the room, you are to ask for permission to proceed from the soldier closest to you. For example: "HERRA KAPTEENI, KORPRAALI OJALA, ASIAA LUUTNANTTI ALAJOELLE" ("Sir [Captain], Corporal Ojala, permission to address Lieutenant Alajoki"). Present your errand while standing at attention unless your superior tells you to stand at ease.
4. When you have completed your task, salute your superior and exit the room promptly.

When **two soldiers walk side by side**, the junior soldier is to walk on the left side.

You may not walk through a section in close-order formation, nor may you walk between a commander and his detachment, nor may you walk between two people having a conversation. When you are having a conversation with someone, position yourselves so that there is room for others to move.

When **three soldiers** are walking side by side or when **four soldiers** are walking side by side, the senior soldiers are to walk in the middle and the junior on their left.

If a subordinate wants to address a superior that is having a conversation with a higher superior, it is considered good manners for the subordinate to ask for permission to address his superior in the following manner: HERRA VÄNRIKKI, ALOKAS TERÄVÄINEN, ASIAA YLIKERSANTTI HEINOSELLE. ("Sir [Second Lieutenant]", conscript Teräväinen, permission to address Staff Sergeant Heinonen.)

An individual soldier is not obliged to salute in the following situations:

- when carrying out a combat or guarding task, unless stated otherwise in the guarding guidelines,
- when conducting traffic control,
- when transmitting / signalling / communicating,
- while eating,
- during breaks or when working in a mess / canteen, the kitchen,
- in a church or chapel, at a devotional or funeral,
- during a competition or training, or when functioning as an official
- in the washroom, sauna, at the beach or as a patient in a hospital ward
- in a film, theatre, restaurant hall or in the Soldiers' Home canteen.

Saluting is of course allowed if it seems appropriate at the time.

When going on foot, skiing or when in a vehicle, you should not salute if it is difficult or can put people at danger either in traffic, in a crowded place or any other similar situation.

When a detachment proceeds, it is to salute its company commander, its other direct superiors and all generals/admirals.

Rendering honours

And individual soldier and troop render honours to

- the President of the Republic
- the head of state of a foreign country
- when the Finnish flag or any other national flag is being hoisted or lowered and when it is in front of a convoy or procession
- when embarking or leaving a ship, towards the ship's flag
- towards the brigade or battalion flag
- towards the deceased in a funeral procession and in a wreath laying ceremony
- during the Finnish national anthem or any other national anthem
- during the Finnish Defence Forces' or your brigade's honorary or traditional march

An individual soldier will stop to render honour. He either turns to face the object or person being honoured or, if this is in motion, a soldier must face it. After this he salutes according to orders, i.e. stands at attention, moves his hand into the saluting position and follows the object or person being honoured with his gaze.

Reporting

Reporting for duty supports and speeds up action within a military organisation. It is also a guarantee of due process for the soldier and it enhances occupational safety. For instance, reporting for duty when you have returned from your holidays let's others know that you have returned safely from your holidays and according to schedule.

A subordinate must keep his superior informed of his or her holidays, assignments, sick leaves and any other leaves. If you know you are going to be late, you must immediately contact and inform your own brigade-level unit or, if this is not possible, the closest Finnish Defence Forces' office.

Equality and gender equality

What are equality and gender equality?
Conscripts with different backgrounds and personal characteristics serve in the Finnish Defence Forces: there are women and men and there are people with varying ethnic backgrounds and of different faiths and beliefs. Above all, what equality and gender equality means is that each person is given the equal right to make choices, develop their skills and be awarded for their efforts. In practice this means, for instance, that people from different groups are given a fair chance to advance in their career and given access to education that allows them to specialise.

The opposite of equality is unfair treatment and discrimination. Such behaviour can be direct and open where one person or group is treated differently than another person or group in the same position without any valid reason. In a military context, though, the biggest challenge for gender equality is not blatant discrimination as such but so-called discriminating practices. This might come across in well-established routines, or in the expectations and stereotypes that people have regarding people that belong to a certain group thus putting these people at a disadvantage. This is often done unknowingly. In practice this means that people belonging to certain groups may find it harder "to get something" or "to get somewhere". This can mean e.g. special training or some other benefits.

All forms of discrimination are prohibited by the Act on Equality between Women and Men and by the Non-Discrimination Act.

Furthering equality and gender equality in a brigade

Requirements relating to equality and gender equality are based on the Act on Equality between Women and Men, Non-discrimination

Act and Occupational Safety and Health Act. Obligations and rights based on these laws also apply to soldiers.

To make equality a reality it is important to ensure that the operational culture of the brigade allows people to take equality into account.

Putting someone at a disadvantage without a valid reason is not acceptable, regardless of whether it is a question of daily training or tasks or when selecting conscripts for speciality training. The intentional or factual offending of a person or category of people is unacceptable, as is creating a hostile or disrespectful atmosphere. Inappropriate or degrading language is one example of such unacceptable behaviour. In the Finnish Defence Forces, it is seen as particularly important that people do not use expressions concerning groups or people that could be offending to the people perceived as belonging to that particular group. This includes men and women, ethnic background and religion. All forms of harassment and bullying are prohibited.

Putting a person at a disadvantage and discriminating against them on the grounds of age, ethnic or national origin, language, religion, conviction, opinion, political activity, union activity, family ties, state of health, disability, sexual orientation, or other personal characteristics is prohibited. Treating people differently is not discrimination, if the treatment is based on law and it has an otherwise acceptable objective and the means for reaching the objective are proportionate.

Behaviour that deliberately offends a person's human dignity is harassment. Sexual harassment, harassment based on gender, harassment at work or in service and bullying in service is defined as discrimination. Also orders or instructions to discriminate is discrimination. A person's gender or other personal characteristics may not prevent their possibilities for career advancement, gaining access to education or training or for using family-related leave.

Intentionally offending a person or personnel group or creating a hostile or offensive atmosphere is prohibited. Using inappropriate and degrading language is prohibited.

Any form of sexual, gender-related or other harassment and bullying is prohibited. Sexual and gender-related harassment is unwanted physical or verbal behaviour, a characteristic of which is that the feelings and consequences it causes to its target are always negative. Gender-related attention becomes harassment if it continues after the person subjected to it says that he/she finds it insulting or offensive.

Superiors carry particular responsibility for the operating procedures and atmosphere in their unit. If a superior becomes aware of discriminatory or derogatory behaviour in his/her unit, it is his/her duty to intervene.

Preventing harassment and bullying

Conscript training systematically aims to create a capable wartime force with a positive mindset. There is no room for harassment or bullying in a unit that has a good team spirit where everyone is aware of and committed to the common goals. Commanders play a particular role in creating a unit's team spirit, but subordinates must also remember their own obligations and they must act according to the General Service Regulation.

The Finnish Defence Forces apply a zero tolerance policy to all forms of harassment and bullying. It should never be allowed to occur and when such behaviour does come to light, no exceptions are made. Bullying and harassment are criminal offences. Suspected cases are investigated and dealt with through judicial organs. By reporting such cases, a superior becomes aware of the problem. A company or brigade can then immediately intervene. An environment without harassment or bullying is everybody's right and something everyone should respect.

What is harassment?

Harassment is to deliberately target a person psychologically or physically with the aim of making them feel bad. Often the aim is also to ostracise the person from the social group or to make their position questionable. Harassment can be calling someone names (referring to ethnic background, religious belief, gender, outward appearance etc.), ridiculing someone, making jokes at someone else's expense, abandoning someone, belittling someone or behaving in any other way that deliberately aims to harm or offend another person.

Harassment can be either verbal or physical. Silent harassment, such as making faces, sighing, staying silent, turning one's back or avoiding talking to someone, often goes unnoticed. Verbal harassment includes spreading rumours, using language that causes anxiety, ridiculing someone, imitating someone, threatening someone, commenting non-stop on the sayings and doings of a person or making jokes at someone's expense. Physical harassment can be, for instance, pushing someone, which can be quite easily seen by everybody.

There is an imbalance of power between the harasser and the person being harassed so that the one being harassed is defenceless against the harasser. This inability to defend oneself may have to do with physical weakness or there can be many other different reasons. Sometimes this imbalance is created by the sheer number of harassers. When two people who are just as strong mentally and physically fight, it usually isn't a case of harassment. Harassment can have one or more constituent elements of a military offence.

Language in the military can sometimes be very colourful, but this does not mean that "anything goes". Language has to be appropriate. Swearing or offensive language does not belong in military training, nor is it appropriate behaviour for a soldier.

What is bullying?

» *Bullying is when a superior abuses of his power so as to knowingly or deliberately cause a subordinate such mental or bodily suffering, that has nothing to do with the requirements of the service situation. Bullying is the deliberate violation of the human dignity and legal rights of a subordinate by a superior who abuses of his powers brought on by general military authority.*

According to chapter 45 section 16 of the Criminal Code (559/2000), a superior abuses of his or her powers when the following constituent elements can be observed:

A superior is guilty of abusing his or her position if he/she abuses his/her military authority to such an end that it causes suffering to someone under his/her command, or that it endangers someone's health in a way that is not necessary for the purposes of military service, or has treated someone degradingly, or as a superior with disciplinary authority, **has punished or reprimanded someone that he/she knows to be innocent.** A superior will also be condemned for abuse of powers if he or she orders someone under his or her command to complete a task that is not part of the subordinate's military service or training.

Only when the pre-trial investigation has been completed and disciplinary action has been taken or a legal sentence has been pronounced can it be said whether it was a case of abuse of power on the part of the superior. Otherwise it is a case of suspected abuse of powers by the superior.

» *Demanding or physically strenuous military training that aims to systematically develop an individual's and unit's capabilities does not constitute bullying.*

Reporting a case of harassment or bullying

If you feel that you have become the target of harassment or bullying or you notice harassment or bullying of someone else in your unit, platoon (equiv.) barracks, you must immediately report this to one of the following:

- the company commander, company sergeant major or instructor
- the battalion CO
- the social welfare officer
- the chaplain
- the legal officer
- the military physician at the garrison health centre
- a conscript committee member or the unit representative of your own company's conscript committee.

The reporting procedure is ordered according to brigade-level unit. You can find more information on this on your unit's notice board and in the barracks information folder.

It is every soldier's duty to intervene if he/she notices harassment or bullying. Even if you yourself are not the victim, it is essential to report all suspected cases of harassment and bullying. It could be a situation where the victim is afraid to report what has happened. In such cases, fellow servicemen and women play an important role in reporting and solving the problem.

3.5 Close order

Close order describes an activity and formation where parts of a troop and individual soldiers are grouped together in a specific formation. Close order activities are precise and simultaneous and are carried out using a determined set of commands.

» *By training close order, trainees become accustomed to obeying orders instinctively and accurately.*

Close order training plays an important role in creating discipline and team spirit within the troop.

Close order enables precise leadership even of large detachments and creates a foundation for action on the battlefield.

Close order is also used to form a basis for activities in other military training events.

When in closed order, the commander sets the cadence of how the unit moves through his commands. The commands usually include a **preparatory element** and the **actual command**, such as "KÄÄNNÖS OIKEAAN ....PÄIN!" ("Right... Face!")

Learn to listen to the commands correctly and be prepared to give such commands yourself.

The preparatory part alerts soldiers to what they must do next. Hold a small pause after it. This pause gives everybody the chance to get ready for what comes next. A commander who has only recently assumed the position of commander will often leave the pause too short. Similarly, a unit that has only just started practising will move before the actual command has been given. After the pause comes the actual command. Stress the first syllable of this command. This ensures everybody does the right movement at the same time.

The procedures used in closed order can be applied to any training where the aim is to improve precision and instinctive control of movement.

» *Exercises in closed order improve your reaction times, your ability to control your mind, body and weapon, and your physical condition!*

3.6 Functional areas of logistics

The task of logistics is to maintain and develop the fitness for combat and capability of the units. Logistics includes care for personnel as well as maintenance and restocking of military equipment. Logistics is divided into the following functional areas:

- supplies
- maintenance
- medical
- transportation
- logistics services.

Supplies

The aim of supplies is to make sure that, in terms of equipment, the forces have the designated strength and are fit for combat so that the users receive the correct high-quality equipment at the right time. Supplies include:

- weapon and munitions equipment,
- petrol, oil & lubricants,
- food and field provisioning equipment,
- clothing,
- electronics,
- engineer and CBRN materiel,
- office supply and IT equipment and
- mapping and imaging material procurement, storage and distribution to logistics centres and units, as well as evacuation and equipment monitoring.

Maintenance

The aim of maintenance is to keep the equipment available to the troops or in storage in working order as required. Maintenance also includes the replacement of spare parts. Ordnance supply includes organised servicing and repairing activities aimed at the technical condition, and spanning the entire life cycle of materiel, the individual device, equipment or system.

Materiel maintenance at the Defence Forces is conducted on two levels (Maintenance level 1 and level 2). Level 1 covers the (organic) maintenance system in the Defence Forces' brigades. Level 2 mainly covers the maintenance systems of strategic partners and elsewhere in industry. Level 2 maintenance operations are executed by Millog Oy, for example. Maintenance requires specifically trained personnel, maintenance equipment, facilities and spare parts at all levels. Maintenance emphasises the monitoring of equipment condition, regular checks and preventive maintenance, for which the users are primarily responsible. Maintenance and checks conducted by the equipment user are called operational maintenance.



Medical care

The task of the medical service is to provide care and treatment for the wounded and sick, evacuate them for treatment, maintain health and prevent illnesses as well as distribute and supply medical materiel. Medical services also include environmental control as a factor relating to the performance capability of the troops. Medical care is divided into

- medical treatment
- health care
- medical material replenishments and maintenance
- environmental health care.

Transportation

The aim of transport is to keep the troops operational by transporting the equipment they are entitled to or have ordered to the right place, in good condition and at the right time, and evacuate usable broken equipment that cannot be repaired at the level in question. The basic principle of transport is to avoid situations where the equipment needs to be offloaded from a vehicle or an interchangeable container and reloaded within a short time.

Maintenance services

Logistics services are used to maintain the mental and physical fitness for combat of both individuals and units. Logistics services include:
- provisioning (meals in the garrison and on field exercises, field and vessel provisioning and combat ration packets)
- water supply
- field hygiene
- clothing maintenance (e.g. material distribution and replacement)
- Soldier's Home incl. canteen activities
- casualty care
- postal services (field post)

In addition to this, at lower organisational levels such as in company-level units, logistics services can include tasks relating to facilities management and payments (e.g. payment of conscripts' daily allowance).

3.7 Logistics training during the basic training period

Logistics training is included in other training during the basic training period. Logistics training is focused on the measures a soldier needs to know to retain their fitness for combat and keep the state property at their disposal in working order. After the basic training period, a soldier must:
- know the basics of first aid
- know how to take care of their health and personal hygiene
- be familiar with the basics of environmental protection and field hygiene
- be aware of the maintenance activities in the company and brigade to the extent that they understand their part in it and
- are familiar with their responsibility for the equipment in their possession and the measures taken when army equipment is lost or damaged, and are aware of the possible consequences.

Personal ordnance

For training purposes, the soldier is given a weapon and its accessories in addition to a blank adaptor, case pouch, hearing protectors and a bayonet, if needed.

The soldier is responsible for the careful handling, storing, condition and maintenance of service equipment in their possession. The soldier is liable to compensate for damage, if equipment in their possession gets lost or its condition is weakened during duty due to negligent or careless handling and care. Ordnance must be serviced after use and handling, after firing, and regularly each week.

Health and medical care and first aid

In terms of health and medical care, the soldier must know:
- procedures when falling ill on duty and on leave
- hearing protection
- prevention of frostbite and heat-related illnesses

In first aid, a soldier must know:
- how to stop bleeding, how to secure the airways and what is the correct position for transportation
- cardiopulmonary resuscitation, CPR

3.8 Special instructions

Medical care

Emergency first aid
If a person suddenly loses consciousness, assess immediately whether they need CPR.

Speak to the person and shake them.
If the person does not react, they could be suffering from a cardiac arrest. Shout for additional help and call 112 and follow the instructions given. Do not end the call until the emergency officer gives you permission to do so.

Check the breathing and open the airways
Open the airways: press on the person's forehead with one hand and lift their chin upwards with the other.

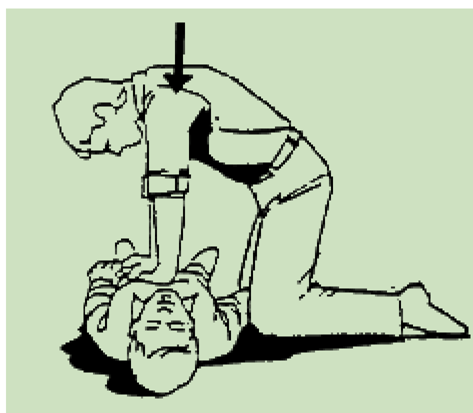
Check their breathing by placing your ear or the back of your hand in front of their mouth:

- Can you feel their breath on your skin?
- Can you hear them breathing?
- Can you see their chest rising and falling?



» *If the patient is breathing normally, place them in the recovery position to secure breathing. Monitor the patient's condition and breathing until professional help arrives.*

Compressions
If the patient still is not breathing, begin compressions.



Kneel by the patient at shoulder level, place your palm in the middle of the patient's breastbone and place your other hand on top for support.

Press the breastbone straight down with your arms straight using the weight of your body.

The rate of compressions is 100 per minute. With chest compressions, the breastbone of an adult must be depressed clearly (4–5 cm) towards the spine.

Press 30 times.

Mouth-to-mouth
Reopen the patient's airways by tilting their head backwards. Press on the person's forehead with one hand and lift their chin upwards with the other.



If the patient still is not breathing, **begin mouth-to-mouth.** Pinch the patient's nostrils closed, place you lips tightly around the patient's mouth and blow air into their lungs.



Start with two blows. Monitor whether your blows make the chest rise. If air is not getting easily through, check the position of the patient's head and chin. Clear the mouth quickly of vomit, blood and mucus with your finger. Remove foreign objects and loose dentures from the mouth and throat.

Keep monitoring that the **patient's chest is rising and falling.**

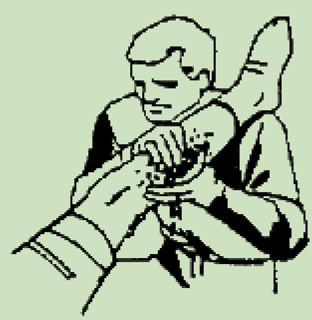
The CPR rhythm is 30:2 (30 compressions and 2 blows) regardless of whether there are one or more people available.





Continue with CPR until:
- the patient shows signs of recovery
- professional help arrives
- you exhaust yourself

How to stop bleeding
A large external bleed must be stopped as quickly as possible using all reasonable measures available.



Lay the injured person down immediately. Stop the bleeding by pressing the wound with your fingers or palm. If the wound is on a limb, raise the limb so that the wound is above heart level.



Place a pressure bandage on the wound. Place a suitable object, for example a bandage roll, box of matches or stone, as weight on top of the clean bandage. The bandage and the weight should be secured on the wound with a bandage or piece of clothing that is firm but



not too tight. Make sure that the bleeding is stopped and that the pressure bandage is not too tight. If the bandage is too tight, it will cause numbness or pain in the limb.

If the wound is on a limb and the pressure bandage does not stop the bleeding, for example when the limb is amputated, a tourniquet must be used. You can use a belt, a bandage or piece of cloth as a tourniquet. The tourniquet should be placed directly above the wound and pulled so tight that the heavy bleeding stops. A patient who has lost a lot of blood must be transported lying down to a hospital and the wounded limb should be supported with a splint or a bandage during transport.

Remember to first use the person's own emergency bandage! Instructions for use are in the package.

First aid and prevention of shock
Lay the wounded person down and lift their legs up using, for example, a rucksack, rock or chair for support.

Stop heavy external bleeding as quickly as possible.

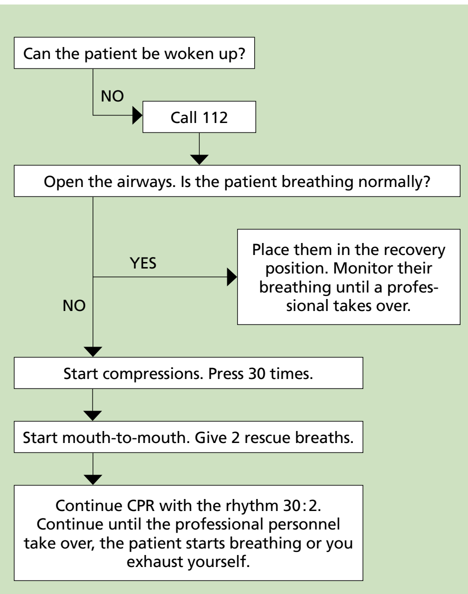
Cover the patient with warm clothes or a blanket, and protect them from moisture with a rain cape or a plastic protective cover, and insulate them from the cold ground with cardboard, newspapers or by lifting the patient onto a stretcher.

Avoid causing unnecessary pain when administering first aid. Calm the patient down, call for help if needed, prevent further injuries and get the patient to care quickly.



Something to think about

1. What should you do in the following situation? A member of your fire-and-manoeuvre team is wounded in combat by an assault rifle shot to the left thigh. The thigh is bleeding profusely. The patient is lying on their back and not responding. What factors must you note in assessing the situation? What are the most important measures you must carry out first and what do you do after?
2. You arrive at the scene of a traffic accident. Use the following key words and think about what to do:
   1. Assessment of the situation
   2. Call for additional help
   3. Rescue
   4. Prevent further accidents
   5. Administer emergency first aid
   6. Monitor the condition of the wounded and
   7. arrange directions for help



Maintenance services

Clothing

The clothing distributed to the conscript is used to form the field uniform, service dress, leave uniform and ceremonial uniform suitable for different weather conditions and tasks.

The conscript is responsible for the storing and maintenance of equipment provided, as well as for replacing it with intact and clean pieces. The battle dress must never be washed at home, as ordinary detergents weaken its protective level against night observation. Always replace a dirty battle dress with a clean one!

» *Your appearance creates the first impression of you and your brigade when you are dressed in military uniform. What that impression is, depends on you!*

On leave and during free time, you are allowed to use civilian clothing outside of the garrison area. You can wear your own clothing with the military uniform, as long as it is not visible outwards. You must keep your civilian clothing in good condition at your own expense. Combining military clothing with civilian clothing is forbidden, if it could cause misunderstanding or degrade the status of the military uniform.

You can be authorised to use your own sports equipment, clothing and footwear in different sports events. You will not be compensated for their use. You are not allowed to wear your military uniform at party political events, demonstrations, fancy dress parties or other similar events.

» *If you notice that any equipment is missing or lost, notify your section leader immediately.*

4 Weapons and marksmanship training



This chapter introduces the general safety regulations, the basics of marksmanship and firing stances taught during the basic training period, as well as firing with an assault rifle.

Firing skills are a soldier's most important skills. First, you must learn the basics of marksmanship. The ability to hit a target at a firing range is the basis for practising skills in combat marksmanship training, combat firing, and combat. Safety regulations must be followed in handling weapons and munitions. Weapons training creates safe and secure skills for handling a weapon.

Those without military training think firing is the same as you see in violent popular entertainment. However, when a soldier shoots, only the hits count. Excessive noise, muzzle blasts and ricochets are useless. You need to forget what you have seen in films. To a soldier, a weapon is a tool that is part of the profession, not an extension of your ego.

The objective of the weapons and marksmanship training during the basic training period is that the soldier

1. knows the principle behind the use an assault rifle
2. can handle an assault rifle safely
3. knows the basics of what makes a good shot and the principles of marksmanship training
4. is able to shoot with an assault rifle at least satisfactorily (accepted result, III - class)
5. can handle an assault rifle in simple combat situations
6. is capable of cleaning and maintaining an assault rifle in working order
7. knows the safety regulations that apply during marksmanship training.

4.1 General safety regulations for shooting

Each soldier must be aware of the key content of these safety regulations and know how to act as required by the regulations. The safety regulations are followed both in peacetime and, when applicable, during wartime.

Handling and holding weapons and munitions

1. **You are not permitted to handle weapons, munitions, or explosives unprompted if you are not familiar with how to handle them.**
2. **If a supervisor orders a soldier to fire a weapon or to handle explosives or equipment containing explosives that the soldier is not familiar with or knows that they are insecure in handling, the soldier must inform the person giving the order of this before starting to fire or handle the weapon.**
3. **Unauthorised possession of munitions, explosives, and firearms is forbidden.**
4. **In all exercises where weapons, munitions, or explosives are handled, each individual soldier is responsible for interrupting the exercise by shouting SEIS ('CEASE FIRE') if they notice something that could be dangerous for the training unit, to bystanders, or to property.**
5. **You must never aim a weapon at a person or easily damageable objects.**
6. **Identify the target before firing. Ensure, by observation, that there are no persons in the line of fire or behind the target.**
7. **Move your finger onto the trigger only when you are about to fire.**

Storing a weapon

Loaded weapons must not be stored in weapon stands, and breeches and magazines may not have rounds in them. The weapon must be made safe. Magazines must be removed from the weapons, and used magazines must not be stored anywhere but in a locked storage space.

Handling practice munitions

1. **Blanks must be handled as carefully as live rounds. Hearing protection is particularly important. In order to protect people's hearing, earplugs or hearing protectors must be used.**
2. **A weapon without a blank-firing adaptor must not be used to fire blanks. Blanks must not even be distributed to soldiers whose weapons do not have a blank-firing adaptor, and a person possessing a weapon that is not equipped with a blank-firing adaptor must not accept blanks, even if they are offered.**
3. **Before a combat exercise or a training event where blanks are used, each individual soldier must always check that:**
   - **the blank-firing adaptor of an assault rifle or a machine gun is in place and functional and that it is thoroughly coiled**
   - **there are no live rounds left in the weapons, breeches, or magazine bags in their possession**
   - **there are no live rounds among the blanks given to them.**
4. **Blanks must not be fired towards another person from a distance of less than 50 metres. In exceptional cases where, on the orders of the leader, shots are fired from a distance of less than 50 metres, the barrel of the weapon must be directed upwards.**
5. **After combat practice or a training session, each individual soldier must, without a separate order, check by looking and, when necessary, checking with a finger, that there are no remaining blanks in the weapon's breech or magazines. All remaining blanks must be given to the closest direct superior, at the latest when arriving at the garrison.**
6. **Hearing protectors must be used during all firing.**

Reporting a dangerous situation

Possible 'near misses' must always be reported to a superior to identify any potential danger. The Finnish Defence Forces collect 'near misses' information in a register that is used to develop operations and training.

Firing exercises

1. **When preparing for a firing exercise, each marksman must check that the weapon has no rounds in it and that it is properly assembled, functional, and well cleaned. In addition to this, marksmen must protect their hearing.**
2. **Marksmen must handle their weapons and the munitions they possess during the firing exercise in such manner that sand, dirt, other impurities, or water does not get into the weapon.**
3. **An individual marksman must constantly check that there are no persons in the firing direction or in close proximity to the barrel of the weapon. The hearing of a person within the blast area of a weapon can be damaged.**

Handling munitions

1. **When munitions are being distributed, each marksman must check that the munitions distributed are clean, of the correct type, and have no defects. Each soldier must know how to distinguish live rounds, blanks, and loading practice rounds from each other.**
2. **After a firing exercise, everyone is responsible for handing in the leftover munitions to the leader of the firing exercise, or to a person designated by the leader, even if not specifically ordered to do so.**
3. **After an exercise, each soldier is responsible for handing in the remaining practice equipment and munitions, as well as explosives, to the closest superior at the latest when arriving at the garrison, even if a specific order to do this has not been given.**
4. **Live munitions and practice munitions must never be mixed or mistaken for one another.**

Preventing accidental firing

Most accidental shots occur during the checking of the weapon after practice, during transportation in a car, or during the cleaning of the weapon. Never point your weapon at anything other than the target – always check after firing that the breech of the weapon is empty – only perform a blank shot by aiming at the target or in the air. Always maintain and store your weapon with the magazine removed.

Checking and making a weapon safe

1. **A firearm must always be handled as if it were loaded. When you pick up a weapon, always check first that the breech and the magazines are empty, and make the weapon safe.**
2. **Unless ordered to do so, a weapon must not be loaded, or handled when loaded. A weapon must always be made safe and kept as such when it is not being used or handled.**
3. **Never give another person a loaded weapon without warning them that it is loaded.**
4. **When starting to handle a weapon, you must always ensure by looking and, when necessary, checking with a finger, that the round is not in the breech, in the magazine, or in another place where it could end up in the weapon's barrel while the weapon is being handled.**

Hearing protection

» *Your hearing is invaluable. Use cup-shaped or in-ear hearing protectors. Place the in-ear protectors carefully into your ear canal. The soldier is personally responsible for protecting their hearing as instructed. If hearing is not protected, even one shot can cause permanent hearing damage.*

The assault rifle is the most common type of weapon causing auditory trauma. Blanks are the most common type of round causing auditory trauma.

In approximately 90% of noise-induced hearing loss cases, the person affected was not wearing hearing protection when the auditory trauma occurred. Protectors must be used and put in place carefully.

The hearing trauma was usually caused by accidental firing during handling or cleaning the weapon. Therefore, the most common individual reason for missing hearing protection

was an unexpected situation where it was not known that hearing protection was necessary. Blanks must be handled as carefully as live rounds. The weapon must always be checked to ensure there are no live rounds left in it after firing and when beginning to handle the weapon.

An auditory trauma can lead to deafness, being unable to hear certain pitches, and constant ringing in the ears. Injuries can be prevented and eased with quickly arranged care. The symptoms of an auditory trauma include the ears being blocked and tinnitus, whistling in the ears, ear pain, bleeding from the ear, weakened hearing, or other ear symptoms.

If you suffer from one or several symptoms after a sudden exposure to noise, inform your instructor of this immediately, and you will be directed to care and medical examinations. A slight auditory trauma is treated by avoiding exposure to further noise, taking a hearing test and monitoring the symptoms, as well as being prohibited from smoking and firing weapons. When necessary, a new hearing test is conducted.

An incident report is made for all injuries, regardless of the line of treatment. Severe tinnitus, without weakened hearing, can also be treated with hyperbaric oxygen.

Inserting earplugs

Insert the earplugs like this:



Choose an earplug of the right size.



Make sure that your hands are clean. Roll the earplug between your fingers to narrow it.



Pull your ear backwards with your other hand and insert the narrowed plug quickly into your ear canal. Press the plug until it has expanded (approximately 20 seconds).



If the plug is expanding out of your ear canal, it has not been properly inserted. Repeat the insertion and make sure that the plug is deep enough in your ear canal.

Preparing for firing exercises and behaviour at the firing range

The following are general instructions that you should remember when participating in firing exercises, in the interest of maintaining service safety and respecting other people.

The regulations of each firing range direct behaviour on the firing range. More specific regulations concerning the firing range will be detailed in the safety regulation lesson, held before the firing exercise.

Weapon handling

- Always handle the weapon as if it were loaded
- Never point the weapon at anything other than the target
- Make sure the munitions you have received are of the type ordered
- The firing leader or instructor gives orders on inserting the magazine and loading the weapon
- The weapon must always be made safe before departure.

Handling explosives and munitions

- Do not accept munitions you are not familiar with, or munitions you have not been trained to handle.
- Handle the munitions you have received carefully as instructed: the correct handling prevents dangerous situations.
- Unexploded munitions must be marked with a tripod.
- If you find unexploded munitions, inform your instructor of this so that the munitions can be marked and cleared later. A person separately trained for clearing munitions performs the clearing.

Unexploded munitions can be charged. They can explode even from a light touch or when moved.

Unexploded munitions, parts of them, or other unknown objects found must not be touched!

Moving

- The purpose of the restrictions is to prevent persons from going to danger zones and putting themselves in lethal danger.
- Never leave the unit without the instructor's permission.
- Only use the routes you have been ordered to use. If you are uncertain about the route, ask for clarification.
- Remember to inform the instructor of your arrival.
- Remember to watch your step: there are unexploded munitions on the firing ranges. Follow the orders and instructions of the sentry.

Behaviour in the target zone

- Entering the target zone during firing practice is only permitted by order or with the permission of the firing leader or a separately authorised person.
- When moving in the target zone, you should use open formations and trails that are confirmed as safe.

Hearing protection

- Always protect your hearing before starting firing.
- The instructor will order use of earplugs, hearing protectors, or both.
- You are personally responsible for following the instructions given.
- If you suspect an auditory trauma, inform the instructor of this immediately.
- Beginning treatment as soon as possible decreases the damage.

Nature conservation

- Do not leave any rubbish in nature.
- If you drop it, you pick it up.
- Place the rubbish into a refuse sack or at the designated spot.
- Do not hide your rubbish in the ground; animals will find it even underground while looking for food and spread the rubbish into the terrain.
- Remember that the practice and firing ranges are used year round, also after your visit.
- Building an open fire is only allowed with the instructor's permission in designated places; the area might include an explosion hazard.

Hygiene

- Wash your hands before a meal, if possible.
- Wash your cutlery after each meal.
- If you use a plastic bag in your mess kit, place it into a refuse sack after the meal.
- Only relieve yourself in a latrine. If you are unable to do this, dig your bodily waste into the ground.
- Always wash your hands after relieving yourself.

4.2 Weapons training

7.62 Assault rifle

Soldiers must be able to handle and use the weapon so that they can achieve an accuracy of 80 % at a 150 m firing distance in light conditions, and 70% in the dark at hitting a target with a diameter of 20 cm. In addition to this, the soldier must be able to disassemble the assault rifle in 5 seconds and assemble it in 15 seconds, as well as fill the magazine with 30 rounds in 35 seconds. The most commonly used assault rifles are models -62 and -95.

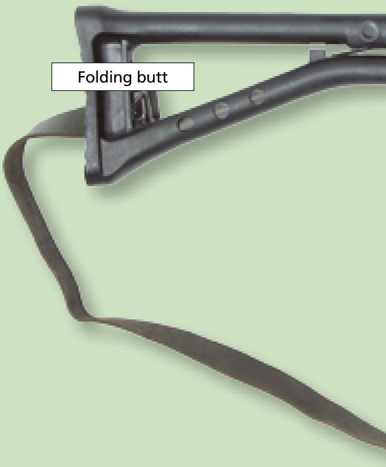
Properties of an assault rifle:

- The effective firing distance is 300 m.
- The assault rifle functions automatically (loads, fires, and ejects the case).
- The weapon can be used to fire both single shots and sustained fire.
- The weapon uses dioptre sights for daylight use and open sights with tritium ampoules to be used in dim lighting; a night vision device (NDV) can be attached to the weapon.
- The magazine has space for 30 rounds; a full magazine weighs 0.8 kg.
- The firing capacity is three full magazines, meaning 90 rounds.
- The fighting load of a soldier contains six magazines.
- The rate of fire is 2030 shots per minute for single firing (single firing is more effective than sustained fire).
- The rate of sustained fire, taking the change of a magazine into account, is 120–180 shots per minute, and the theoretical rate of sustained fire is 700 shots in a minute.
- The RK 95 rifle offers the opportunity to use a rifle grenade, a night sight, as well as a silencer and a front support.
- The weight of the weapon without a bayonet and a magazine is 3.5 kg.
- The bullet remains dangerous up to a distance of 4 km.

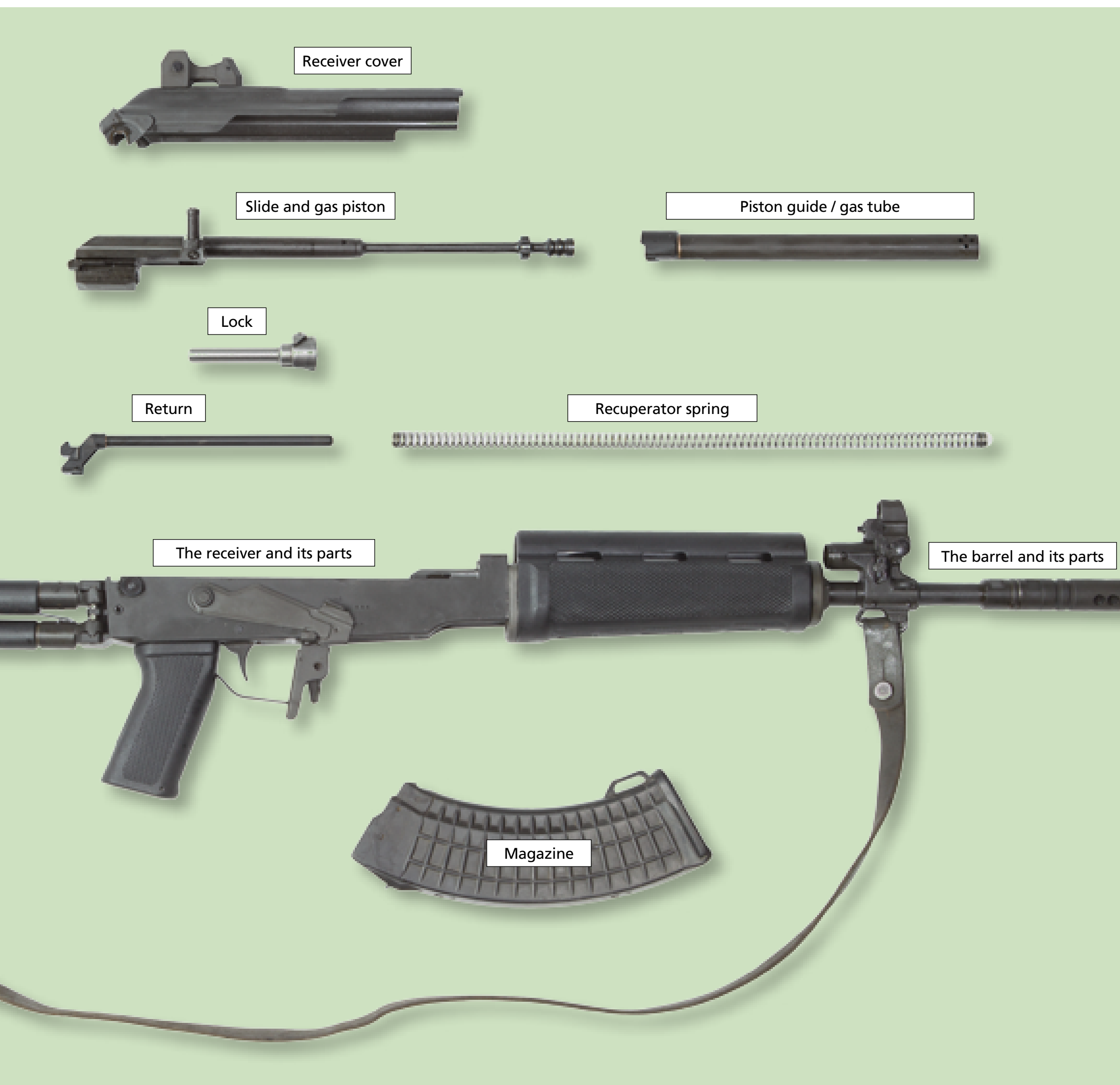
Assault rifle 7.62 RK 62, assembled:



Assault rifle 7.62 RK 95, disassembled



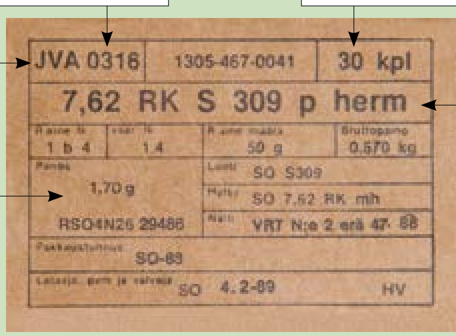

Rear sight
Selector lever
Bolt assembly
Front sight
Handguard
Barrel
Gas cell
Flash suppressor
Grip
Firing mechanism
Carrying strap


Receiver cover
Slide and gas piston
Piston guide / gas tube
Lock
Return
Recuperator spring
The receiver and its parts
The barrel and its parts
Magazine

Equipment



Information on the round box



Contents

7,62 RK =	assault rifle round
S 309 =	Full metal jacket bullet type S number 309
p herm =	package airproof
vj 313 =	Tracer bullet number 313
vj S pv th =	Tracer S-bullet, Russian packaging
als lkp =	Aluminium core, short range round
pl pap =	Wooden bullet, blank

Maintaining an assault rifle

» *Before starting maintenance, always check by looking and, when necessary, checking with a finger, that there are no remaining rounds in the weapon's breech and that the magazines are empty! Keep the magazine separated from the weapon during maintenance, and handle your weapon in such a manner that it is not pointing at another person.*

The assault rifle is disassembled for maintenance by first removing the magazine and checking that the weapon is not loaded. Next, the receiver cover is removed, then the slide and the lock, as well as the return spring and the piston guide. The magazine is disassembled for maintenance by removing the spring of the magazine.

The weapon must be disassembled in the correct order. The parts must be handled carefully. It is particularly important not to damage the receiver cover, including the rear sight. (RK 62)

The maintenance must be performed with the weapon's own cleaning supplies. Check before cleaning that the ramrod is straight and properly assembled.

The barrel is cleaned through the muzzle, the breech is cleaned through the back, and deposits are removed from the gas cell. Do not ruin the muzzle by scrubbing it too hard. Support the ramrod with your other hand so that it does not rub against the muzzle and cause it to become cone-shaped.

The receiver and the other parts should be cleaned with a cloth. When cleaning the weapon, you must check that

- there is no deposit build up in the gas cell and on the gas piston
- the hammer moves freely in the lock
- the cleaning supply space and the hollow in the handguard are clean
- the flash suppressor is not loose
- the sights are fully functional and the rear sight is not loose
- the receiver cover has not loosened
- the magazines are fully functional.

If a defect is found in the weapon, the superior must be informed of this immediately. After cleaning, the parts of the weapon must be oiled and the weapon is assembled.

A wet weapon must first be carefully dried and then oiled.

» *Oil mixed with water is not a lubricant or a protective coating!*

The weapon is maintained after firing so that the barrel is oiled after it has cooled

- after 2–3 hours, the weapon needs to be cleaned and oiled
- after 2–3 days, the weapon needs to cleaned and oiled again

» *In military manoeuvres and in the field, the weapon requires daily maintenance. In the winter, the weapon must be stored outside or at the back of the tent, because otherwise the temperature changes can cause it to freeze.*

You must use a blank-firing adaptor while firing blanks. It is attached to the barrel of an assault rifle according to the images on the next page.

» *The weapon must not be dented, bent, used as a lever or as a seat, or left in a place where it could be run over by the wheel or band of a vehicle. The weapon is an accurate tool, a combat device that is damaged by incorrect handling. A damaged weapon will not hit the target!*

Attaching the blank-firing adaptor of an assault rifle:

7,62 RK 62









7,62 RK 95

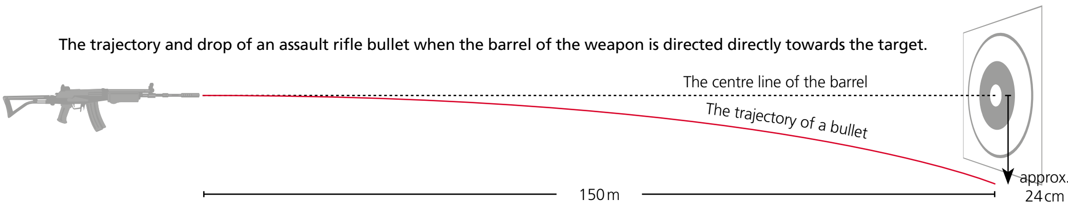






4.3 The basics of firing

The trajectory and drop of an assault rifle bullet when the barrel of the weapon is directed directly towards the target.



The trajectory of a bullet

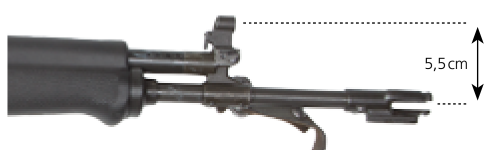
Fundamentals
After leaving the barrel, the bullet flies at a constantly decreasing speed. At the same time, it starts to fall towards the ground at an accelerating speed due to gravity. Therefore, the **trajectory of the bullet** is always slightly arched. A bullet with a low muzzle velocity drops more than a bullet with a high muzzle velocity at the same distance.

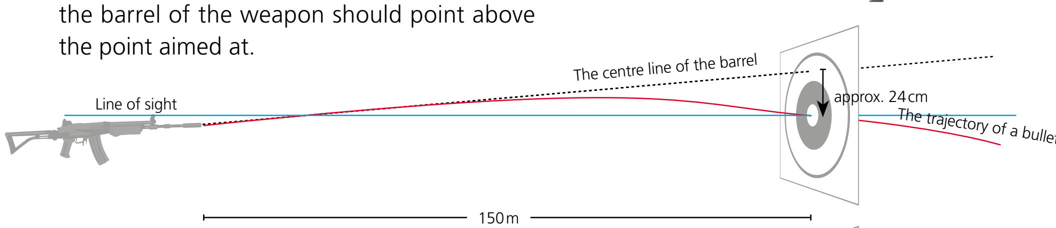
The trajectory of a slow-flying bullet is more arched than that of a rapidly flying bullet. The end of the bullet's trajectory is always more arched than the start, because the speed of the bullet is constantly decreasing due to air resistance.

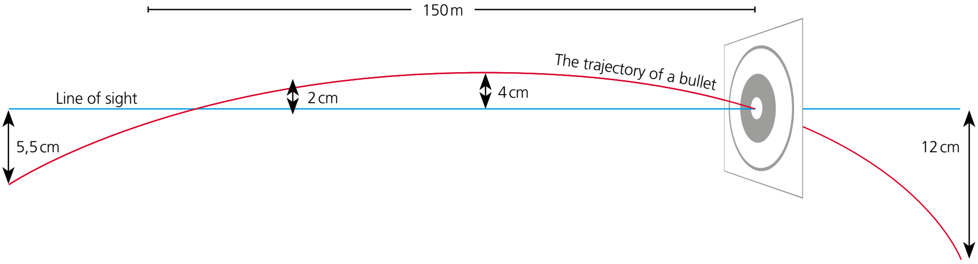
To make the bullet hit the target aimed at, the line of sight, which is the straight line going through the sight towards the target, must intersect the arched trajectory of the bullet at the target. This is why when aiming at the target, the barrel of the weapon should point above the point aimed at.

The line of sight of a weapon is usually located at the muzzle, above the trajectory of the bullet (the sights are located above the barrel). This is why the trajectory of the bullet intersects the line of sight during the start of the flight, raises above the line of sight, and returns below the line of sight when the end of the flight begins.

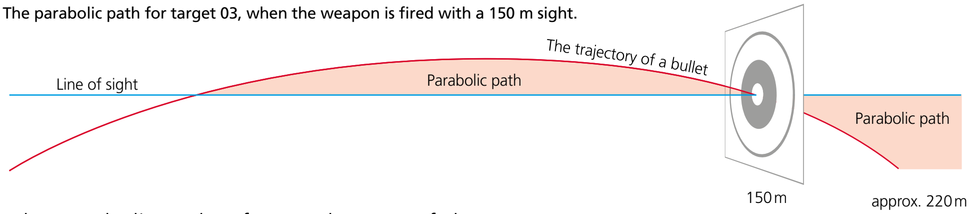
This has two consequences. Firstly, the weapon needs to be directed by taking the current firing distance into account. The configurations of the assault rifle's sights can easily and quickly be changed for positions corresponding to different firing distances. Secondly, when firing from behind an obstacle, remember that the bullet will fly below the line of sight during the start of the flight. This is why you must aim sufficiently above the obstacle. In an assault rifle, the difference is 5.5 cm at the muzzle.





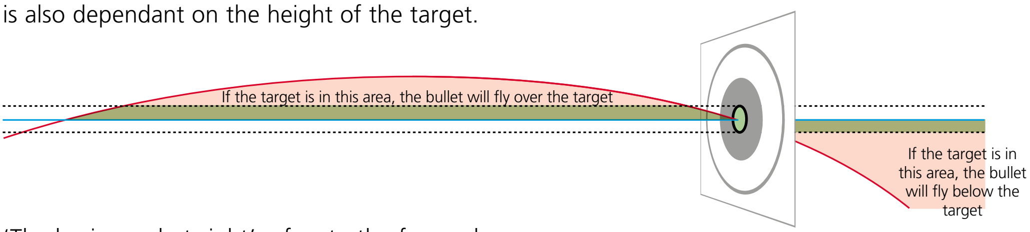


The parabolic path for target 03, when the weapon is fired with a 150 m sight.



'The parabolic path refers to the part of the bullet's trajectory where the bullet does not rise above the aimed target or drop below it. The greater the trajectory of the bullet is, the longer the parabolic path. The parabolic path is also dependant on the height of the target.

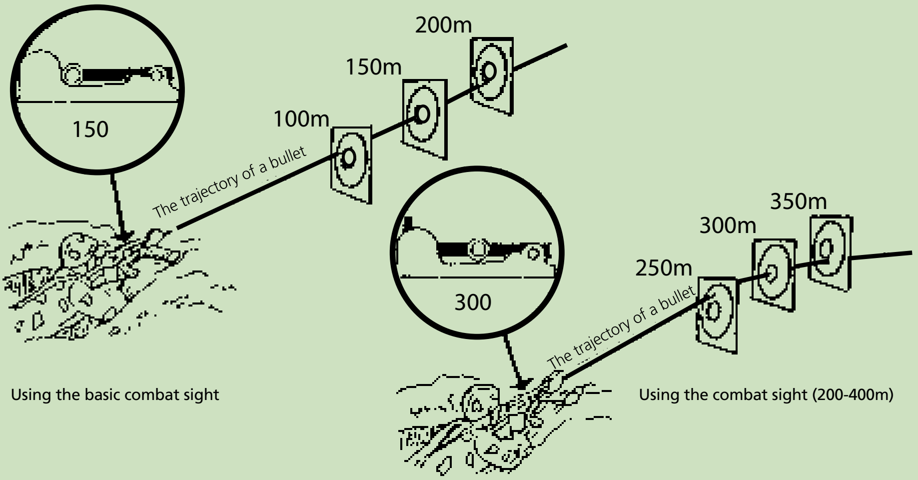
The higher the target is, the longer the parabolic path. The significance of the parabolic path must be understood in order to be able to use a weapon efficiently in combat.



'The basic combat sight' refers to the focused sight configuration of an assault rifle for a distance of 150 metres. The basic combat sight is always used when there are no grounds for using another sight. The basic combat sight can be used to fire at distances of between 0 and 200 metres, as far as the parabolic path is considered. Notice that the basic combat sight (150 m) is the rearmost position of the rear sight setting device. When you push the setting device forward, first choose the 100 metre position; the distance number will only start to grow after this.

The combat sight refers to the sight configuration of an assault rifle for a distance of 300 metres. The combat sight is set when the target is over 200 metres away. The combat sight can be used to fire at distances of between 200 and 400 metres, as far as the parabolic path is considered. The sight configurations of the assault rifle allow the user to fire even further. The efficiency of fire begins to weaken as the dispersion grows, which is why targets far away should preferably be fired at with machine guns and precision rifles.

The parabolic paths of an assault rifle bullet when firing with 150 metre and 300 metre sights.



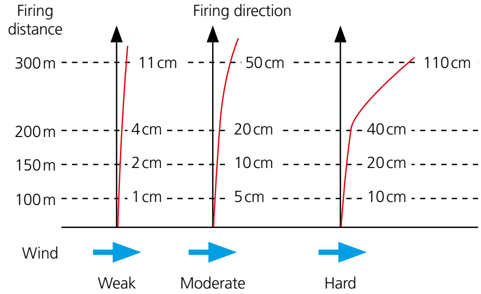
Factors affecting the trajectory of a bullet

In the barrel of the gun, the grooves cause the bullet to quickly rotate around its longitudinal axis in order to make it fly towards the target with its tip foremost. This is how the bullet best defeats air resistance and maintains its best ability to penetrate the target. The rotation helps decrease the errors in the trajectory caused by the irregularities of the bullet, which causes the dispersion to diminish significantly.

The trajectory of the bullet is also affected by wind, air pressure, air temperature, and air humidity. The deviations of the mean point of impact caused by these phenomena can be fixed by aligning the weapon. A bayonet attached to the assault rifle raises the trajectory slightly.

Wind is the weather factor that affects the trajectory of the bullet the most. Headwind and tailwind affect the trajectory of the bullet at a 300 metre firing distance so little that there is no practical need to take the winds into account. However, crosswind has a significant effect even at a short firing distance, particularly when the wind comes directly from the side.

The impact of wind on the bullet's trajectory.



Weak wind (1 m/s) is the kind that makes tree leaves and the thinnest branches move and smoke rise diagonally.

Moderate wind (n 5 m/s) is the kind that makes tree branches move, bends the grass, and causes powder snow to fly.

Strong wind (ca. 10 m/s) is the kind that makes even large trees sway, makes dust and fine sand fly, and makes powder snow swirl violently.

Changes in the bullet's trajectory caused by **air pressure** difference can in practice be left unaccounted for.

Differences in air temperature mostly affect the temperature of gunpowder. Temperatures below zero lower the temperature of the gunpowder and decrease the muzzle velocity of the bullet, whereby the points of impact are slightly lower. Similarly, the gunpowder temperature increasing raises the points of impact on the target.

The difference in air humidity can in practice be left unaccounted for. However, rain has a slight effect on the bullet's trajectory, as heavy rain pushes the bullet a few centimetres lower at long firing distances.

Dispersion and the mean point of impact

Dispersion

When several shots are fired in the same conditions, with the same weapon, from the same place, and while using the same sight position and the same aiming point, there will be deviations between points of impact. The deviations are caused by random errors. This is called dispersion. Dispersion is caused by the marksman and partially by the weather, the rounds, and the weapon.

The points of impact are dispersed due to dispersion in the areas around the mean point of impact both vertically and horizontally. The horizontal deviation from the mean point of impact is called horizontal dispersion, and deviation vertically is called vertical dispersion.

The marksman causes most of the dispersion with their aiming and firing errors. An ordinary marksman makes more mistakes while firing the weapon than while aiming. The dispersion caused by aiming errors can be minimised fairly quickly with training

and practice. Decreasing the dispersion caused by firing errors requires more practice.

Weapons and rounds are manufactured in such a way that they cause as little dispersion as possible. Different types of rounds can behave in different ways despite this. For example, the bullet of a tracer round loses mass during the flight, and because of this, it does not behave in exactly the same way as a normal bullet.

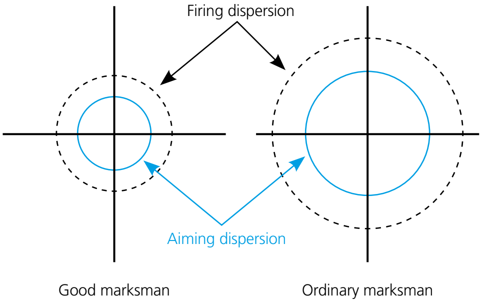
The diameter, the mass, the form, and the sinking depth of the bullets have slight differences. The fluctuation of the amount of gunpowder in the rounds causes slight differences to the muzzle velocity of the bullet. Together, these cause the dispersion caused by the round.

Even new weapons have slight differences that affect the dispersion. Barrels and breeches wear when used: they loosen and the barrel may get eroded. In addition to this, improper cleaning methods can cause the **muzzle to become cone-shaped.** Together, these cause the dispersion caused by the weapon. Possible **loose movement in the sights** increases the dispersion.

Changing weather and the heating of the barrel affect the dispersion during firing.

Dispersion caused by the weapon and the round is usually small, at the maximum a third of the dispersion caused by an excellent marksman themselves.

The effect of a good marksman's and an ordinary marksman's aiming and triggering errors on dispersion.



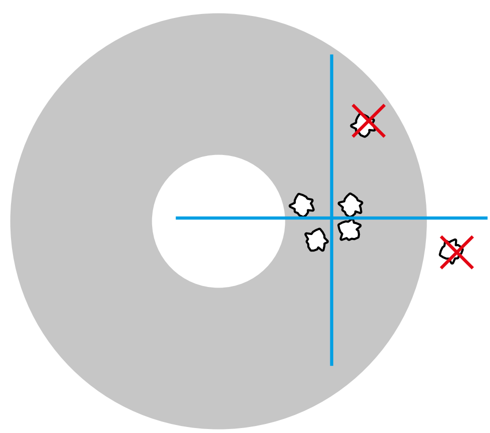
The 10-shot dispersion pattern of a new assault rifle at a distance of 150 metres always has a diameter of under 15 cm, and, in practice, under 10 cm. You can count on your weapon; learn to fire.

Mean point of impact

The mean point of impact is at the middle of the dispersion pattern. There are points of impact densely around it. When firing several shots, there will be as many points of impact on both sides of the vertical axis and the horizontal axis going through the mean point of impact.

The mean point of impact is defined by dividing the points of impact into two sides with a vertical line so that both sides have as many

Defining the mean point of impact.



points of impact. After this, the pattern is similarly divided with a horizontal line. The intersection point of the lines is the mean point of impact. A point of impact that significantly differs from the pattern created, called a 'stack', is usually left unaccounted for. The cause of the deviation is usually a random firing error by the marksman.

The exact mean point of impact is easy to define in a small stack. A stack on the side can be moved in the centre of the target by moving

the sights. The mean point of impact can be aligned with the aiming point by aligning the weapon. The assault rifle is aligned for a distance of 150 metres (basic combat sight, 0–200 m). The weapon is aligned by moving its sights horizontally and vertically. Different weapons have different methods of alignment. Learn how to align the weapon you are using.

Assault rifle 7.62 RK 62 is aligned horizontally at a distance of 150 metres, so that

- the bead is moved in the direction of the points of impact; the conveyor screw is loosened on the side of the points of impact and tightened on the opposite side; only the tightening of the screw moves the bead
- one rotation of the conveyor screw corresponds to 25 centimetres on the target
- one click of the conveyor screw corresponds to 2 centimetres on the target.

The weapon is aligned vertically so that

- the position of the peep sight is checked from the alignment lines before opening the conveyor screw
- the conveyor screw of the peep sight is opened with a sight spanner and
- if the points of impact are below the mean, the peep sight needs to be raised, or
- if the points of impact are above the mean, the peep sight needs to be lowered
- the plotting interval of the peep sight (1 millimetre) corresponds to approximately 32 centimetres on the target
- the position of the peep sight is checked from the alignment lines after the movement and the configuration is marked down and
- the setting device is set at 150 metres.

Assault rifle 7.62 RK 95 is aligned at a distance of 150 metres or 300 metres by turning the sight plate to the position corresponding to the alignment distance. The screw of the receiver must be tightened.

Vertical and horizontal alignment are carried out from the front sight horizontally so that

- the bead is moved in the direction of the points of impact similarly to RK 62
- at a distance of 150 metres, one rotation of the conveyor screw corresponds to a 24 cm vertical movement on the target so that
- the bead is rotated in the direction of the point of impact with a bead movement spanner (clockwise if the point of impact is below)
- at a distance of 150 metres, one rotation of the bead corresponds to a 24 cm movement on the target

» *After alignment, write down the positions of the sights. This makes realignment of the weapon easier if the configurations change for some reason.*

Night sights are aligned horizontally, similarly to day sights. Vertically, the **RK 62** is aligned by opening the clamping screw of the night sight adjustment screw and then opening (if the point of impact is below the mean) or closing (if the point of impact is above the mean) the adjustment screw of the slot. One full rotation corresponds to approximately 120 cm on the target at a distance of 150 metres. Vertically, the **RK 95** is aligned by rotating the night bead to the height of the day bead with a sight spanner so that one of the apertures remains directed at the marksman.

Breathing

Breathing technique is critical for the success of a shot, because it affects the success of firing as a whole. The breathing technique is the same with all weapons.

The movements of the chest, abdomen, and shoulders during breathing shake the weapon so that firing a weapon while breathing, and

with the sights pointing at the centre of the target, is very difficult. This is why you must hold your breath during aiming and firing.

Only begin to hold your breath during the building of the aiming image. Breathing should be normal before starting to hold your breath. Begin to hold your breath when the amount of air in the lungs feels appropriate, that is usually when the outflow of air during exhalation ends naturally (when you have exhaled ca. 1/3 – 1/5 of the air in your lungs after a normal inhalation). If the shot is not fired during 8–10 seconds of holding your breath, you must interrupt your aiming and rest. During the rest, the lungs must be refreshed with 2 or 3 deep breaths.

Firing

The purpose of firing is to get the weapon to function and the bullet to move exactly at the moment when the aiming is at its most accurate and the weapon has settled. This moment, 'a good hold', only lasts a few seconds. If the weapon is not fired during the hold, the firing event must be started anew. A compulsive triggering nudges the weapon, causing the bullet not to hit, instead creating dispersion caused by a firing error.

» *A good firing stance creates a base for a successful shot.*

This is why the body must not be so tense that the micro-movement of the muscles moves the weapon. The position must be firm, and the weapon must be as if locked to the body. The trigger finger must be able to work freely, so that the order received is completed on time, and the finger does not pull the other body parts with it into the triggering. See if you can move your trigger finger in a way that no other part of your body moves or tenses.

To achieve proper trigger pull, a squeezing technique is used. This is because it is typical that the marksman knows that they are firing the weapon, but is not certain, by fractions of a second, when the shot is going to leave. You can improve your shot by continuing to aim at the target, even though the weapon has been triggered. This is called 'follow-through hold'.

Poor triggering is the primary factor causing dispersion. You can confirm this by practising with the NOPTEL devices, for example. You will learn squeezing triggering, and soon your firing performance will be so automatic that you will be able to hit the target even in fast-paced situations.

The triggering is technically performed like this:
The grip of the weapon is gripped tightly. The hand is placed on the grip so that the trigger finger presses the trigger, as depicted in the image, and at the same time, is not touching the weapon.

The handguard is held with the left hand and the weapon is pulled towards the shoulder. Most find it best to hold the front edge of the handguard with the thumb and the index finger. The other fingers squeeze from the side. Try to keep the biceps relaxed. **The loose movement of the magazine** must always be eliminated from the same side.

The squeezing of the trigger starts at the same moment as the accurate aiming begins. You can imagine that you are squeezing an orange with your whole hand, but only your index finger moves, because the other fingers are on





Correct grip

the grip of the weapon. Be careful not to tense the muscles in your arm or shoulders during this. Learn to squeeze slowly so that the weapon fires when the accurate hold begins.

» *The only way to learn how to properly fire a weapon is practice, and you will not achieve good firing results without learning proper firing technique.*

Aiming

Fundamentals

The purpose of aiming is to direct the weapon, with the help of the sights, at the target as accurately as possible, and keep the weapon directed at the target for the duration of the firing.

Aiming is usually easier with the better, or the dominant, eye. For most people, this is the right eye. The better eye can be defined by fixing the sight on a point, keeping the arm extended, and raising the thumb to cover the chosen point. After this, one eye is closed at a time without moving the thumb. When looking with the better eye, the thumb still covers the chosen point. Whereas when looking with the weaker eye, the thumb seems to move away from the chosen point.

Aiming includes: pre-aiming, focusing the image, and post-aiming (follow-through hold).

In the **pre-aiming,** the target is searched for in the sights and the sights are directed at the centre of the target. At the same time, it can be confirmed that the firing stance is straight. The position is straight if the sights move vertically relative to the target, with the breathing rhythm.

During the **focusing of the image,** the sight is focused on the bead so that the bead looks sharp and the target looks fuzzy. As the image focuses, the weapon settles and a good hold is achieved, during which the weapon is fired. Try to keep the weapon steady (follow-through hold) after firing.

The purpose of the **post-aiming** is to find the target in the sights again and thus strengthen the correct aiming image learned.

The head must be kept upright so that the position of the eye is natural. This is when the muscles of the eye are relaxed, the lens is in the right form, and the sight radius enters the retina correctly. When aiming through the corner of the eye, the eye muscles are pulling the eyeball so that it becomes ellipse-shaped and the aiming image is not formed sharply on the retina, but on its front or rear side.

The eye of the person aiming must function without obstruction. Keeping the head upright and aiming with both eyes open contributes to this. An erroneous position of the head dims the targeting image and also obstructs the vestibular organs from functioning properly.

Closing the free eye requires effort, which causes constant strain. Closing the other eye causes pressure in the eye. At the same time the pupil enlarges and also causes the pupil of the aiming eye to enlarge. This is why you should learn to aim with both eyes open.

Aiming with both eyes open is difficult, at first. This can be eased by placing a light-coloured piece of cardboard, for example, in front of the free eye. Some find it easier to fire with the other eye partially or fully closed. However, do not squeeze your eye closed forcefully, as all tension interferes with the firing.

In particular, **marksmen wearing glasses should pay attention to looking at the sights through the centre of the glasses.** Aiming from the edge of the glasses lens may cause additional deflection and aiming errors.

The eye cannot endure long-term accurate aiming; it tires easily. That is when the image it conveys starts to dim. **The image conveyed by the eye is at its sharpest 2–5 seconds after beginning accurate aiming, and starts to dim approximately after 10 seconds.**

Therefore, the firing must happen 6–8 seconds after directing the weapon at the target, at the latest. If more time passes, the eye no longer detects inaccuracies in the aiming image and accepts the so-called fake spot.

The eye must rest if the shot is not fired within ten seconds of beginning the aiming. The eye is rested by looking far away.

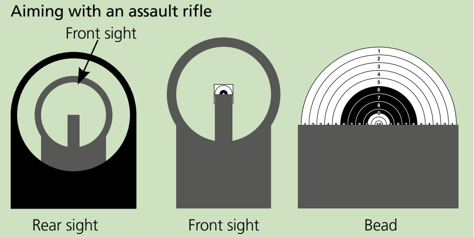
The eye cannot see targets that are at different distances equally sharply at the same time. This is why the eyesight should be focused on the bead so that the rear hole and the target look significantly more unfocused than the bead. The eyesight must not be moved between the rear sight, the front sight, and the target, because the eye cannot constantly adjust to different distances.

Practice aiming well before your first live fire training event. Repeat the aiming and firing exercises in different firing stances and different contexts in which you use the weapon. The firing technique you have learned will also give you a good basis for competitive shooting or hunting.

Using the peep sight of an assault rifle

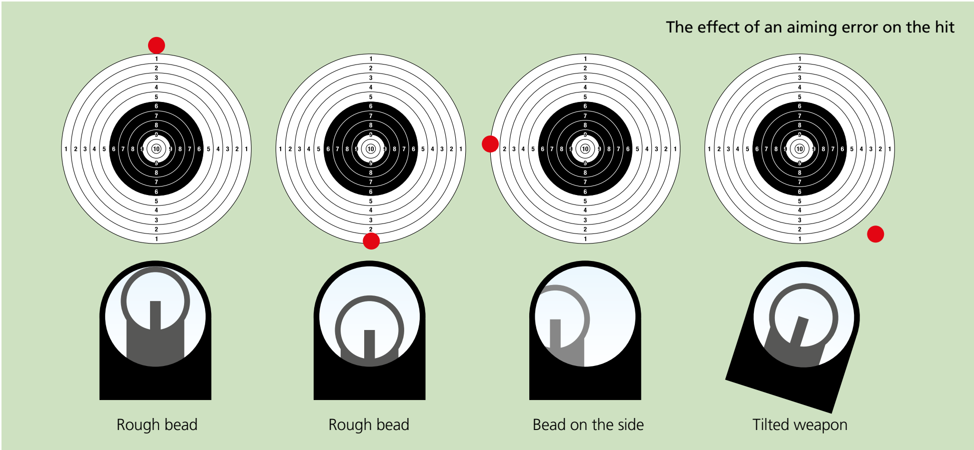
Aiming with the assault rifle is carried out so that the tip of the bead is visible at the centre of the target and the front tunnel is kept at the centre of the rear sight hole. The eyesight is focused on the bead so that the bead looks more focused than the target and the hole.

Aiming with an assault rifle

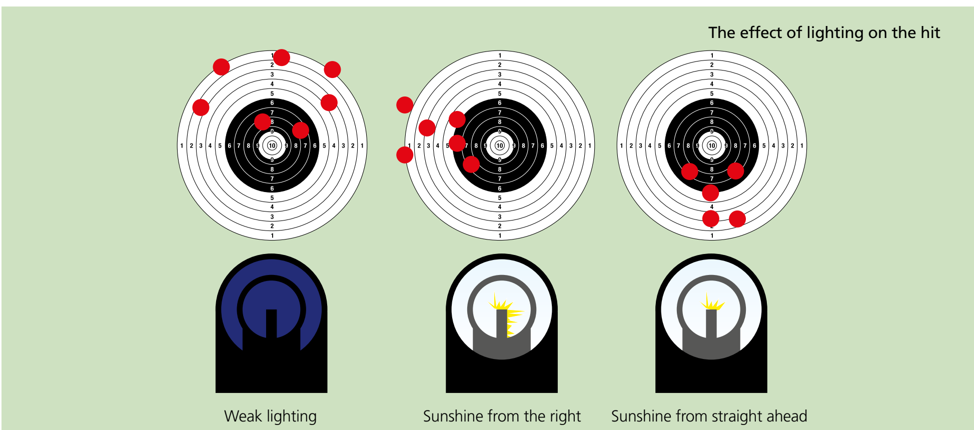


The aiming point is instinctively chosen as the centre of the target, the point where you want to hit. A soldier must learn from the beginning to aim at the centre of the target. When aiming, the most important thing is that the position of the bead and the target, in relation to each other, is always correct. In addition to this, you must check that the front sight is visible at the centre of the rear sight hole.

If the position of the front sight and the rear sight in relation to each other changes, the point of the hit will move on the target towards



the direction of the error. The weapon must be straight when aiming. If the weapon is tilted, the point of impact will deviate in the direction of the tilt and slightly downwards at the target.



The impact of lighting

Lighting has a significant effect on aiming. In dim and poor lighting, aiming is often conducted with a rough bead and shots are fired over the target.

Sun shining on the bead from the front makes the tip of the bead shine, and aiming is done with a fine bead, and the points of impact go downward. The sun shining on the sights from the side makes the bead shine. That is when the side of the bead the sun is shining on looks larger. This is when the marksman aims too far to the side of the shade.

The sun can also shine directly into the eyes or in the rear sight so that the aiming is more difficult as the target is more difficult to isolate.

A target brightly illuminated by the sun can cause aiming errors if the person firing does not aim at the centre of the target. In the sunshine, the white spot of the target looks larger than usual and thus aiming below the spot causes the mean point of impact to move below the centre of the target. Similarly, on a dark day, the spot looks smaller than usual, the consequence of which is often firing too high.

Firing at a moving target

During combat, the targets are usually moving and they are only visible for a short time. Each soldier must know how to fire at a moving target, be aware of the principles of defining an advance, and learn the difference between firing by watching and firing by waiting.

A moving target is fired at in defensive and offensive combat, in a raid, and in air firing. When firing at a moving target, you should aim in front of the target anticipating the distance of the lead. **The lead** is the distance that the target moves during the flight of the bullet. The defining of the lead is affected by the speed of the target, the speed of the bullet, and the firing distance. The lead can be calculated with a formula.

$$\text{Advance (m)} = \frac{\text{distance (m)}}{\text{bullet speed (m/s)}} \times \text{speed of the target (m/s)}$$

Example:
The speed of the man running is ca. 4 m/s
The speed of the assault rifle bullet is ca. 700 m/s
The distance from the target is 150 m

$$\frac{150\text{ m}}{700\text{ m/s}} \times 4\text{ m/s} = \text{ca. } 0{,}86\text{ m}$$

The lead diminishes if the target moves diagonally relative to the person firing. The lead for a target moving at an angle of 45 degrees is two thirds of the value indicated by the formula.

Using tracer bullets and the observations made from them makes it easier to hit a moving target. Firing at a moving target is taught in weapons and marksmanship training. Soldiers are taught to both **follow and wait** for the target.

The stable movement of the weapon in both directions must be achieved mainly with the movement of the body. Triggering must be done steadily despite having little time until the firing.

Following means that the person firing follows the lead point of a moving target with a weapon and fires the weapon at a chosen moment. This means the weapon is constantly moving. In some cases, the weapon is used to follow the target and the weapon is quickly moved to the lead point in the direction of the target's movement right before firing. This must be done when the lead is very long, for example in rapid air firing or when the sights hide the target from sight.

Waiting means that the marksman chooses the aiming point from in front of the target, from its path, and fires the weapon when the target's distance from the aiming point is as long as the lead (the stalking method). The benefit of the method is that the weapon stays still at the moment of firing and the marksman can be sure that there are no obstacles in the trajectory of the bullet or the projectile. The waiting method is used for example when firing rocket launchers and in air firing, where the target is visible for a long time.

» *Memorise the leads as 'the rules of thumb' for target measures.*

4.4 Firing stances

Fundamentals

The primary purpose of a good firing stance is to form as stable and unmoving a support for the weapon as possible. This is why the position must be one where the support is formed by the bones of the body. The weapon cannot be kept immobile only with muscles, because tiring muscles begin making micro movements.

The firing stance must remain the same during each shot. This is enabled by relaxing well and seeking a position that feels as natural as possible.

Leads and close-up pictures when firing an assault rifle at a distance of 150 metres.



Walking enemy
Speed ca. 1.7 m/s (6 km/h)
Lead ca. 42 cm

Assignment: Think about which leads in the picture are the target's measures. If a vehicle that is 150 m away drives at a speed of 90 km/h, how much lead do you need? (see the picture)



Running enemy
Speed ca. 4.2 m/s (15 km/h)
Lead ca. 103 cm



A car
Speed ca. 8.3 m/s (30 km/h)
Lead ca. 1.8 m

You can check your firing stance by aiming at the target and closing your eyes for a moment; in a good firing stance, the aiming point stays in place even when the eyes are closed. The position of the weapon can be checked by aiming at the target and breathing calmly. In a good firing stance, the upright weapon moves up and down over the target and does not sway to the sides.

Due to the structural differences in human bodies, the exact same firing stance does not suit all marksmen. The differences are mostly in the angle between the body and the weapon and in the position of the left hand. Learn a position that feels relaxed and natural for you. Start searching for the position by trying the generally best positions depicted here.

A good firing stance is the kind where the muscles are not tensed and blood circulation and breathing flow as unobstructed as possible. The position must be balanced, so that as little muscle tension as possible is required to maintain it. The eye must be able to aim unobstructed.

The marksmanship training in the basic training period teaches firing prone, kneeling, and standing stances. By applying these stances, the soldier must be able to choose the most suitable firing stance and weapon support in the battlefield in a matter of seconds.



Prone stance

Firing from a prone stance is the most stable firing stance, because the body is supported by the base, and both elbows are supported by the immobile base.

The prone stance is good as:

- the weapon stays stable with as little muscle tension as possible
- the body of the marksman stays in the same position throughout the firing and
- the head of the marksman stays in a position where the eye sees the target unobstructed while aiming.
- a weapon aimed at the target does not move even if the eyes are closed for a few seconds.

During marksmanship training, the firing stance is taken on the order 'AMPUMA-ASENTO MAATEN' ('SHOOTING STANCE - PRONE').

In the prone stance, the assault rifle is always supported the same way from the magazine to the base so that the loose movement of the magazine is eliminated. The immobility of the magazine is ensured by pressing it with the wrist.

The best angle of the body relative to the firing direction is sought; it is usually **10-25 degrees.** A position where the body is extended straight behind the weapon is also suitable for some marksmen. Each marksman must find the most natural position for them. **The position must be one that you can get into without tensing the muscles and one that feels good.**

Breathing is eased by bending the right leg. In this way the solar plexus is raised from the base, free breathing is enabled, and the negative impact of the pulse is reduced.

In the prone stance, the right leg, from knee to ankle, is usually on the same line as the weapon. The left leg is kept straight with the foot upright and the heel at the top. The heel of the left leg must not be forcefully pressed into the base. The left leg, the left side, and the left arm are kept on the same line. Even though the positions of marksmen differ due to individual difference, the spine must not be twisted sideways.

Too large an angle between the weapon and the marksman's body causes tension in the muscles and makes supporting the weapon with the shoulder difficult.

The elbows are pressed so widely that the **head stays as upright as possible** while looking through the sights. Spreading the elbows as wide as possible makes the position more stable. **The position is at the correct height when the butt of the weapon leans fully on the shoulder.**

The prone stance is checked by raising the weapon to the aiming position with the eyes closed, opening the eyes, and checking that the sights are naturally aligned. If the sights are aligned, but are to the side of the target, the error in position is fixed by **turning the whole body.** The vertical direction is fixed by moving the body forwards or backwards. The position is good when the sights are aligned and directed at the target by themselves, and when the aiming point does not change even if the marksman closes his eyes.

A common mistake made by inexperienced marksmen is a firing stance that is too high. In this case, the butt of the weapon does not properly lean on the shoulder and remains too low. As a consequence, the position of the weapon changes after each shot and causes dispersion to increase. As a consequence of too high a position, the head must also be tilted to be able to aim properly. **The position error is fixed** by spreading the elbows until the butt of the weapon leans fully against the shoulder and the head is directly behind the sights.

Kneeling stance

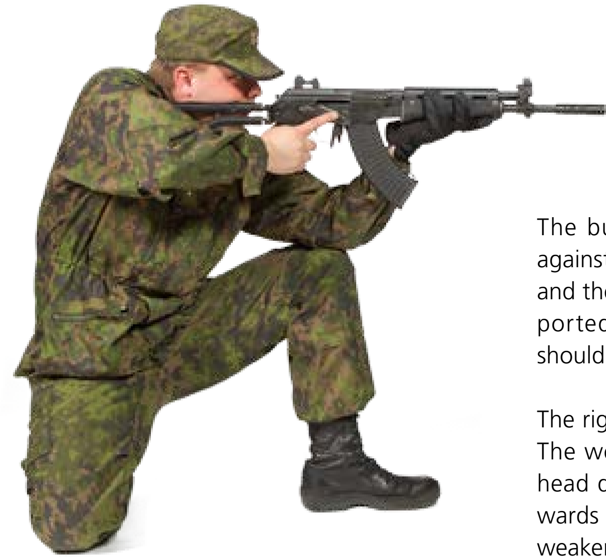
In a kneeling stance, the marksman is supported by **three support points.** These are the left foot, the right knee, and the right foot. Approximately 70% of the weight is placed on the base through the right foot. Only 25% of the weight is placed on the left leg, and the remaining 5% is placed on the right knee. The stability of the position is dependent on the position of the support points.

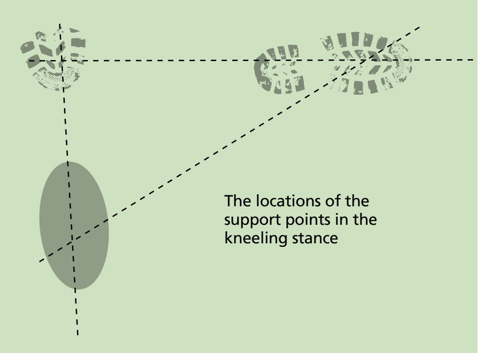
During marksmanship training, the firing stance is taken on the order 'AMPUMA-ASENTO – POLVELTA' ('SHOOTING STANCE - KNEELING').

In the kneeling stance, the marksman sits on the heel of the right foot. The foot is upright with the toes bent forward. The right heel leans on the right buttock or between the buttocks so that the spine is as well supported as possible. When an ankle cushion is used, the ankle is extended and leans on the cushion with the toe of the shoe supported by the base.









The kneeling stance also enables sitting on the inner side of the right leg. In this case, the left leg is no longer upright, but the foot is moved forward.

The left arm leans on the upper part of the patella, and the weapon is held from the front part of the handguard. The elbow must be below the weapon. The magazine of the weapon should lean on the arm in order to reduce swaying. The left arm must not be twisted so that the elbow is on the right side of the line of fire, even if this action would help the magazine to lean on the left arm. Twisting the arm causes the shoulder muscle to tense, which leads to sharp vertical sways of the weapon.

The body must be kept as upright as possible. The upper body of the marksman must not be twisted; instead, the position must be fixed by moving the right knee closer to the left leg.

The butt of the weapon should be placed against the shoulder between the collar bone and the Brachialis muscle so that it is also supported by the pectoral muscles. The right shoulder and forearm must be relaxed.

The right arm can drop to its natural position. The weapon must be lifted so high that the head does not need to be pressed down towards the rear sight. Pressing the head down weakens the stability of the stance.

The head must be kept upright with the face turned towards the target in order to achieve the best possible balance and the least possible tension in the eyes.

The direction of the body in relation to the target must be checked before starting firing.

The firing stance is checked by closing the eyes and lifting the weapon to the aiming position. If the weapon points to the side of the target, the position must be turned, for example by moving both feet while the right knee stays still. If the firing stance is turned only by changing the angle of the left leg, the position becomes unstable.

Standing stance

In the standing up position, the common centre of gravity of the body and the weapon is located high above the base surface formed by the soles of the feet. The weight must the equally distributed between the feet.

During marksmanship training, the firing stance is taken on the order 'AMPUMA-ASENTO – PYSTYSTÄ' ('SHOOTING STANCE - STANDING').

In the standing up position, the marksman steps forward with the left leg and turns right so that the left side is at an angle of 35– 45 degrees to the left of the firing direction. The

legs are kept straight, and knees must not be pressed backwards. Feet are kept at shoulder width. Keeping the legs too wide causes harmful tension in them.

When firing an assault rifle, the left hand holds the front part of the handguard while the elbow is not touching the body. This is the easiest way to fire rapid shots.

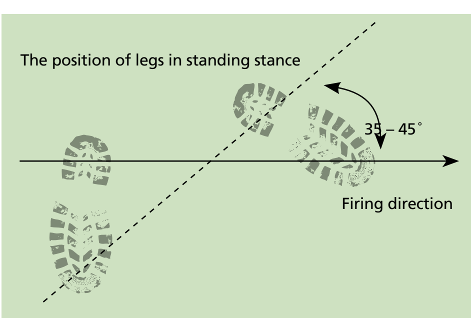
The right hand is holding the grip firmly. This is how the upper arm forms an angle of 35– 45 degrees with the body. By lifting the right elbow, the butt of the weapon leans more firmly against the shoulder, but this may cause muscle tension in the arm, which makes firing difficult. The weapon is pulled firmly against the shoulder with both hands.

The head must be kept straight, as keeping the head upright makes it easier for the vestibular organs to work.

You can check that the direction is correct by lifting the weapon to the aiming position with the eyes closed and checking that it points at the target. The firing stance is turned by moving both legs. The angle between the feet must not be changed. The position must not be turned by twisting the upper body, as this causes muscle tension that interferes with the firing.







4.5 Basic firing

Basic firing with an assault rifle

» *Firing is always preceded by dry fire drills in order to eliminate aiming and firing errors!*

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 1 (RK1)

Topic: Behaviour on the firing range and familiarisation with firing from the prone stance

Objective: The trainee knows
- how to behave on the firing range,
- how to fire from the prone stance,
- how to define the mean point of impact and
- move the sights.

Firing distance: 150 m
Rounds: 3 + 3 + 4 = 10
Target: Target 01

Firing procedure:

Practice:
- teaching how to prepare the firing range,
- revising the firing stance,
- keeping the weapon stable, breathing rhythm, aiming, triggering, and the follow-through hold as well as
- firing practice 5–10 times (or 10–20 times, if the firing is not preceded by practice 2).

Firing:
- 3 /4 rounds are fired in each of the three stages,
- from the prone stance,
- and the target is visited and the points of impact are marked after each stage,
- defining the mean point of impact according to six shots and
- moving the sights before the last stage based on the stack

ATTENTION! If the stack of the first three shots is near the centre of the target (6-10), the next three shots will be fired without moving the sights. If the first six shots are in the stack, it is possible to deduce that
- the trainee has fired from a similar position both times,
- that they have aimed and fired the same way, and
- that there are grounds for moving the sights before the last stage.

Performance objective:
The stack of the last four shots has a diameter of less than 30 cm.

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 2 (RK2)

Topic: Firing from the prone stance

Objective: The trainee knows
- how to fire from the prone stance,
- how to align their weapon,
- how to define the mean point of impact and
- move the sights.

Firing distance: 150 m
Rounds: 3 + 3 + 4 + 10 = 20
Target: Target 01

Firing procedure:

Practice:
- revising the firing stance,
- keeping the weapon stable, breathing rhythm, aiming, triggering, and the follow-through hold as well as
- firing practice 5–10 times (or 10–20 times, if the firing is not preceded by practice 2).

Firing:
- shots are fired in four stages, the last of which is the test part of the firing,
- from the prone stance,
- visit target,
- defining the mean point of impact and moving the sights after each stage,
- repairing the target after the first ten shots, and
- the result of the last ten shots

ATTENTION! Even if the trainee's weapon was at the correct position after three shots, they are not allowed to move directly to the test part. In this case, the second and the third stage consist of practising firing from the prone stance.

Result limits:

5	excellent	91 – 100 points
4	commendable	81 – 90 points
3	good	71 – 80 points
2	satisfactory	61 – 70 points
1	passable	51 – 60 points
0	poor	< 50 points

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 3 (RK3)

Topic: Firing from the kneeling stance

Objective: The trainee knows
- the kneeling stance,
- the breathing rhythm,
- keeping the weapon stable and
- aiming, triggering, and follow-through hold

Firing distance: 150 m
Rounds: 5 + 5 + 5 + 5 = 20
Target: Target 03

Firing procedure:

Practice:
- revising the firing stance,
- keeping the weapon stable, breathing rhythm, aiming, triggering, and the follow-through hold as well as
- firing practice 5–10 times (or 10–20 times, if the firing is not preceded by practice 3).

Firing:
- firing in four stages with the two last stages forming the test part of the firing,
- from the kneeling stance without a time limit,
- visiting the target after stages 1, 2, and 4,
- repairing the target after the two first stages and
- the result of the last ten shots

Result limits:

5	excellent	91 – 100 points
4	commendable	81 – 90 points
3	good	71 – 80 points
2	satisfactory	61 – 70 points
1	passable	51 – 60 points
0	poor	< 50 points

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 4 (RK4)

Topic: Firing from a standing position

Objective: The trainee knows
- the standing firing stance,
- the breathing rhythm,
- keeping the weapon stable and
- aiming, triggering, and follow-through hold

Firing distance: 50 m
Rounds: 5 + 10 = 15
Target: Target 03

Firing procedure:

Practice:
- practising the standing stance
- keeping the weapon stable, breathing rhythm, aiming, triggering, and the follow-through hold as well as
- firing practice 5–10 times (or 10–20 times, if the firing is not preceded by practice 4).

Firing:
- between shots, the barrel of the weapon is lowered to a 45 degree angle;
- shots are fired in two stages, the last of which is the test part of the firing;
- after five familiarisation shots are fired from a standing position, the target is visited, the points of impact are marked and
- the result of the last ten shots

Result limits:

5	excellent	91 – 100 points
4	commendable	81 – 90 points
3	good	71 – 80 points
2	satisfactory	61 – 70 points
1	passable	51 – 60 points
0	poor	< 50 points

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 5 (RK5)

Topic: Changing the magazine

Objective: The trainee knows, while kneeling

- how to change a magazine and
- how to continue firing activities

Firing distance: 150 and 50 m
Rounds: 3 + 2 + 5 × (1 + 1) + 5 × (1 + 1) = 25
Target: Target 04

Firing procedure:

Practice:

- revising the firing stance,
- learning how to pick up the weapon quickly and the correct breathing rhythm,
- revision of aiming and triggering, as well as
- learning how to change the magazine and load the weapon

Firing:

- shots are fired in three stages;
- the weapon is aligned prone at a distance of 150 metres for the first five shots,
- two magazines are inserted, both with one round,
- a shot is fired while kneeling, the magazine is changed, the weapon is loaded and the second shot is fired;
- this is repeated five times,
- the target is visited, the points of impact are marked, the results are written down, and the target is repaired,
- moving to a distance of 50 metres,
- two magazines are inserted, both with one round,
- a shot is fired while standing, the magazine is changed, the weapon is loaded and the second shot is fired;
- this is repeated five times and
- the target is visited, the points of impact are marked, the results are written down, and the target is repaired.

Result limits:

5	excellent	from kneeling	10 hits
		standing	10 hits
4	commendable	from kneeling	8–9 hits
		standing	8–9 hits
3	good	from kneeling	6–7 hits
		standing	6–7 hits
2	satisfactory	from kneeling	5 hits
		standing	5 hits
1	passable	from kneeling	4 hits
		standing	4 hits
0	poor	from kneeling	< 3 hits
		standing	< 3 hits

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 6 (RK6)

Topic: Correcting a malfunction

Objective: The trainee knows
- readiness while standing up,
- how to fire from a standing stance and from a kneeling stance and
- how to correct a malfunction

Firing distance: 50 m
Rounds: 10 assault rifle rounds and 5 cases (or loading practice rounds)
Target: Target 04

Firing procedure:

Practice:
- revising the firing stance,
- revising how to pick up the weapon quickly and the correct breathing rhythm,
- revision of aiming and triggering, as well as
- revision of correcting a malfunction, changing the magazine and loading

Firing:
- two magazines are inserted in the following manner:
- a case, and then a round, is inserted in the first magazine;
- only one round is inserted into the second magazine;
- when ordered, the first magazine is inserted into the weapon (the one with the case and the round);
- when signalled, the firing of single shots begins,
- in the case of a malfunction:
- the marksmen take a kneeling stance, correct the malfunction, change the magazine (to the one with a single round),
- fire one shot kneeling,
- repeat until ten shots have been fired and
- the target is visited, the points of impact are marked, the results are written down, and the target is repaired.

Result limits:

5	excellent	10 hits
4	commendable	8–9 hits
3	good	6–7 hits
2	satisfactory	5 hits
1	passable	4 hits
0	poor	< 3 hits

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 7 (RK7)

Topic: Firing rapid single shots and two rapid shots from the prone stance

Objective: The trainee knows
- how to aim and fire,
- how to change a magazine and load the weapon and
- fire two shots.

Firing distance: 150 m
Rounds: 2+4+4+4 = 14
Target: Target 03

Firing procedure:

Practice:
- revising the firing stance,
- revising how to pick up the weapon quickly and the correct breathing rhythm,
- revision of aiming and triggering,
- revision of how to change the magazine and load the weapon
- learning how to fire two rapid shots and
- practising firing

Firing:
- the firing includes aligning a weapon with two shots and three stages,
- the prone stance and
- no visiting the target between the stages

Stage 1:
- two magazines, each with two rounds,
- the target is visible for 5 seconds, which is when one shot is fired,
- the target is out of sight for 15 seconds,
- after each shot, the butt of the weapon
- must be placed on the base,
- after two shots, the magazine is
- changed

Stage 2:
- the same as stage 1, only the target is visible for 3 seconds and out of sight for 15 seconds

Stage 3:
- two magazines, each with two rounds,
- the target is visible for 5 seconds, which is when two shots are fired,
- the target is out of sight for 15 seconds,
- after two shots, the magazine is changed
- the butt of the weapon is placed on the base only after changing a magazine

Result limits:

5	excellent	12 hits
4	commendable	10–11 hits
3	good	8–9 hits
2	satisfactory	6 hits
1	passable	5 hits
0	poor	< 5 hits

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 8 (RK8)

Objective: Firing two rapid shots while standing and changing targets

Objective: The trainee knows
- how to aim and fire,
- how to fire two shots and
- change targets

Firing distance: 50 m
Rounds: 5 × (2 + 2) = 20
Target: 2 × target 04 / marksman

Firing procedure:

Practice:
- revising the firing stance,
- revising how to pick up the weapon quickly and the correct breathing rhythm,
- revision of aiming and triggering,
- learning how to fire two rapid shots,
- to change target and
- practise firing

Firing:
- 20 rounds are inserted into one magazine
- when signalled, two shots are fired at the left side target, the targets are switched and two shots are fired at the target on the right,
- readiness after four shots,
- this is repeated five times.

Result limits:

5	excellent	19 – 20 hits
4	commendable	16 – 18 hits
3	good	13 – 15 hits
2	satisfactory	10 – 12 hits
1	passable	7 – 9 hits
0	poor	< 7 hits

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 9 (RK9)

Topic: Firing at a moving target

Objective: The trainee knows
- how to define the lead for a moving target,
- aim by waiting and following the moving target, and
- fire correctly at a moving target.

Firing distance: 50 – 150 m (local conditions considered, such as the 'elk range')
Rounds:
Familiarisation 4 (tracer rounds)
Waiting 4 + 4 = 8 (tracer rounds)
Following 4 + 4 = 8 (tracer rounds)
Total 20 (tracer rounds)

Target: Target 04, speed 4 m/s, so that the advance at a distance of 150 metres is ca. 90 cm and at a distance of 50 metres, ca. 30 cm

Firing procedure:

1. By waiting
Practice:
- learning to aim (by waiting),
- to define the triggering moment,
- to recognise the correct firing moment, and
- firing practice 20–30 times (mostly in additional training)

Firing:
- firing distance 100-150 m,
- before firing at a moving target, the weapons are aligned with four tracer
- rounds
- shots are fired in two stages,
- prone or supported in a fighting position,
- each marksman is assigned a sector where the following of the target may start and where the shots must also be fired
- two shots for each movement, the lead is taken by waiting;
- the result is calculated from the last four shots.

2. By following
Practice:
- revising the standing stance
- learning to follow,
- learning to take the lead,
- firing practice 20–30 times

Firing:
- firing distance 50 m,
- shots are fired in two stages,
- standing stance,
- each marksman is assigned a firing sector, where following the target is allowed and where the shot must be fired
- there can be, for example, two marksmen at one movement;
- the lead is taken by following;
- two shots are fired at each movement,
- shots are fired in both directions,
- the result is calculated from the last four shots.

Result limits:

At the minimum, two hits within the last four shots with both methods

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 10 (RK10)

Topic: Firing single shots after turning and during movement

Objective: The trainee knows how to
- turn right, left, and backwards,
- start firing action rapidly after turning and
- fire while moving on foot

Firing distance: 50 – 150 m (local conditions considered, such as the 'elk range')
Rounds:
Familiarisation 4 (tracer rounds)
Waiting 4 + 4 = 8 (tracer rounds)
Following 4 + 4 = 8 (tracer rounds)
Total 20 (tracer rounds)
Target: Target 04, speed 4 m/s, so that the advance at a distance of 150 metres is ca. 90 cm and at a distance of 50 metres, ca. 30 cm

Firing procedure:

1. By waiting
Practice:
- learning to aim (by waiting),
- to define the triggering moment,
- to recognise the correct firing moment, and
- firing practice 20–30 times (mostly in additional training)

Firing:
- firing distance 100-150 m,
- before firing at a moving target, the weapons are aligned with four tracer rounds
- shots are fired in two stages,
- prone or supported in a fighting position,
- each marksman is assigned a sector where the following of the target may start and where the shots must also be fired
- two shots for each movement, the lead is taken by waiting;
- the result is calculated from the last four shots.

2. By following
Practice:
- revising the standing stance
- learning to follow,
- learning to take the lead,
- firing practice 20–30 times

Firing:
- firing distance 50 m,
- shots are fired in two stages,
- standing stance,
- each marksman is assigned a firing sector, where following the target is allowed and where the shot must be fired
- there can be, for example, two marksmen at one movement;
- the lead is taken by following;
- two shots are fired at each movement,
- shots are fired in both directions,
- the result is calculated from the last four shots.

Result limits:
At the minimum, two hits within the last four shots with both methods

ASSAULT RIFLE LIVE FIRE EXERCISE NUMBER 11 (BASIC RIFLE MARKSMANSHIP TEST)

Topic: Firing from prone, kneeling, and standing stances

Objective: In order to confirm the firing skill of the trainee and achieve the objectives of marksmanship training.

Firing distance: 150 m and 50 m
Rounds: 3 + 6 + 3 + 3 = 15
Target: Target 3

Firing procedure:

Practice:
- revising the prone stance,
- firing rapid single and double shots,
- revision of the rapid magazine switching,
- revision of the kneeling and standing stances and
- practising firing

Firing:
- firing has three stages,
- firing forms one entity and
- results are not marked and the targets are not visited between the stages.

1. Prone stance:
- firing distance 150 m,
- the shots are fired from three magazines, each with two rounds,
- the target is out of sight for 15 seconds at a time.

Magazine 1
- the target is visible for 5 seconds, which is when one shot is fired,
- the target is out of sight for 15 seconds, during which the butt of the weapon must be kept on the base,
- switching the magazine when two shots have been fired.

Magazine 2
- the target is visible for 3 seconds, which is when one shot is fired,
- the target is out of sight for 15 seconds, during which the butt of the weapon must be kept on the base,
- switching the magazine when two shots have been fired.

Magazine 3
- the target is visible for 5 seconds, which is when two shots are fired,

2. Kneeling stance
- firing distance 150 m,
- three rounds,
- one magazine,
- no time limit

3. Standing stance
- firing distance 50 m,
- three rounds,
- one magazine,
- the target is visible for 5 seconds at a time, which is when the weapon is fired,
- the target is out of sight for 15 seconds; the marksman is at readiness.

Result limits:

5 Excellent	12 hits =	I class
4 Commendable	11 hits =	I class
3 Good	9 – 10 hits =	II class
2 Satisfactory	7 – 8 hits =	III class
1 Passable	5 – 6 hits =	III class
0 Poor	< 4 hits =	no class



Behaviour at the targets

On the firing range, the marksmen move to the targets only when the rounds have been removed and the weapons have been checked. The weapons are either taken along or left to wait at the firing position. Designated routes are used to move to the targets. The embankments have stairs that need to be used to avoid wearing away the earthwork.

The marksmen go to their respective targets. It is part of the firing range behaviour that the marksmen do not touch their target before the results have been verified. While waiting for the results being verified, the marksman will independently define the mean point of impact. See if some of your shots were caused by a clear aiming error, and remove them from the calculations of the mean point of impact. Prepare to tell your instructor how you plan to move the sights, or if fixing your stance and firing errors will suffice.

The marksmen inform the instructor of their own target when the instructor approaches the target. This can be done by saying for example: ”Herra yliluutnantti, alokas Matti Mäkisen taulu”. (Sir, recruit Matti Mäkinen's target.) The instructor will mark the points of impact and give feedback to the marksman. You will receive instructions for improving your performance, and usually the instructor will also ask you if you see a need to move the sights, and which aspect of firing you plan to improve the next time. The clerk will mark the hits in the firing log.

When the results have been marked, you can repair your target. The instructor will have marked your hits so that they will not be remarked as new hits. You will repair the target with the glued patches intended for that purpose. Use black patches on black background and white patches on white background.

When at the firing range, focus on your own performance and forget playful competition. In combat, your firing skill can save the life of your fellow soldier.

4.6 Live fire exercises

The purpose of live fire exercises

Weapons and marksmanship training lead to the combat firing in different military branches during the basic training period, the special capabilities training period, and the unit training period. The peak of the marksmanship training is the live fire exercise of the platoon or the company, where different branches work together.

The goal of the live firing is to combine the marksmanship training with the combat training in such a way that the weapon handling and shooting skills learned can be used in combat situations. Platoon and company live fire training provides practice in, in addition to combat training, co-operation between leaders and supporting combat with direct firing weapons and indirect fire.

The objectives of live fire exercises

The objective of the live firing training is that

- the soldiers are able to use their weapon in combat as a part of the patrol, section, platoon, and company, and that they trust the efficiency of their own weapons,
- the group can handle situation-appropriate firing in defensive and offensive combat both in daylight and in the dark and
- a person in leadership training handles the co-operation with the leaders of other branches and the preparation and leadership of the groups' use of fire during combat, including the support fire of the direct fire weapons and the organisation of indirect firing.

Something to think about

1. What are the central safety regulations for a soldier during live firing exercises?
2. How can you prevent auditory traumas and accidental shots?
3. What is the difference between a basic combat sight and a combat sight?
4. Why is it required that the soldier be able to define the mean point of impact of the weapon and what is the purpose of aligning the weapon and writing down the positions of the sights?
5. How do you form a good firing stance and what are the factors included in forming a good shot?

5 Combat and march training

In the basic training period, the training starts with learning the skills of an individual soldier and then moves on to operating in two-man teams and/or fireteams according to the wartime unit setup.

This chapter describes the battlefield and combat from a soldier's point of view. The goal is that you know the combat skills and basics of operating in combat that are required of a soldier.

The actions of a soldier are looked at more closely than other issues. As a soldier, you may come face to face with serious events that you have to prepare for mentally more deeply than operating instructions or manuals have you think.

Basic combat skills include packing your fighting load, confirmed arm and hand signals, movement techniques, cover and concealment, choosing a good fighting position both in defence and attack and using your assault rifle.

Acting effectively in combat requires knowledge of the general principles and standard operating procedures of combat and the ability to apply them to practice as needed. Most of war is movement, deploying and preparing. Decisive battles may last for a very short time, but they may be very hectic and intensive. A soldier must know how to maintain his combat readiness and combat effectiveness as well as physical capability.

Combat does not usually go as planned. That is when the unit's ability to adapt what has been learned is more important than ever. In combat, you must master the basics and be able to act intelligently and creatively. The cost of mistakes is high.

This chapter also presents the basics of a soldier's actions in attack and defence.

The goal of combat training is that soldiers and leaders learn how to move in the operating environment and circumstances of their wartime unit, to take advantage of the protection of the weather conditions and terrain, and to fulfil the assigned tasks.

The goal of the combat training in the basic training period is that a soldier:

1. knows the principles of using fire in daylight conditions, incl. using small arms against air threats
2. in combat, knows how to take advantage of the cover provided by terrain
3. knows how to select a fighting position for a fireteam and is familiar with fortifying a fighting position to protection level 4, with a focus on protection against direct fire
4. knows the importance of an individual soldier as an observer of the operating environment in combat and knows how to function as a scout
5. knows how to be a sentry
6. knows how to bivouac
7. knows how to arm and remove an anti-tank mine
8. knows how to use a hand grenade
9. knows how to use the Light Antitank Weapon (LAW)
10. knows how to maintain, store and look after personal gear
11. knows environmental protection related actions on exercise



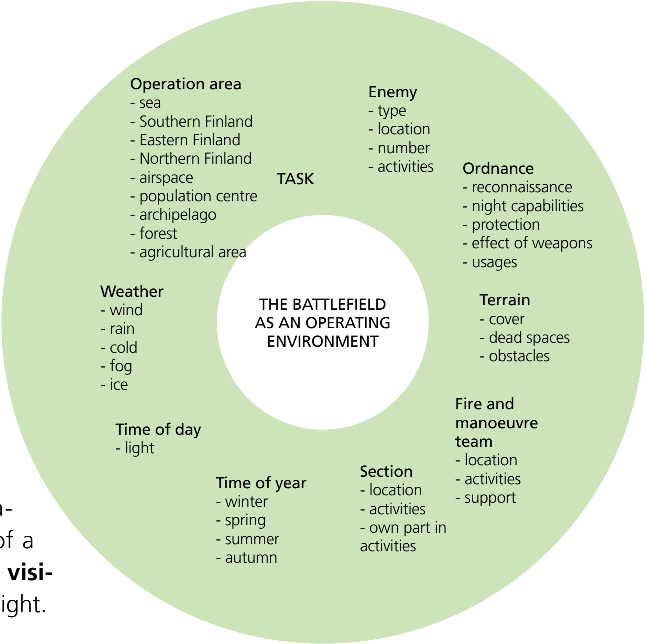
12. knows the effects of CBRN and incendiary weapons and the protection provided by personal CBRN protective equipment
13. knows how to act during a CBRN warning and CBRN alert
14. knows how to use, inspect and maintain personal CBRN protective equipment
15. knows how to decontaminate exposed skin, weapons, equipment and immediate surroundings using personal CBRN decontamination kit.

The goal of the march training in the basic training period is that a soldier:

1. knows how to prepare for a march, actions during a march and has detailed skills and knowledge about how to conduct maintenance after a march, both in relation to equipment and personal health
2. knows how to maintain his own physical performance during long foot or ski marches/hikes, lasting over 4 hours, conducted in fighting load and is fit for combat after the march, despite the strain
3. knows how to function as member of a section during, foot, ski or bicycle marches.

» *The basic requirements of a soldier include the will to fight, skills relating to the soldier's own task and training, combat skills, responsibility and physical and mental performance.*

5.1 The battlefield as an operating environment



In the battlefield the soldier is faced with situations where the enemy tries to break the unit's will and to destroy its opponent. The enemy will attempt to demoralize our units by using psychological operations already in advance. **The speed and audacity of the fighting** is based on the use of mechanised and airborne forces and the use of a variety of combat tactics. Versatile **night vision equipment** enables fighting also at night.

Choosing the right type of terrain will force a mechanised **enemy to fight in disadvantageous conditions.** Well-chosen combat tactics and techniques will take advantage of friendly strengths and the enemy's weaknesses. To a determined unit, this will provide the chances to repel or to defeat the enemy.

A soldier will be under heavy **mental pressure** on the battlefield. The pressure is caused by the proximity of the enemy, and seeing its combat equipment, especially its air assets and main battle tanks; hearing the sounds of the battlefield, the shrill whistle of shrapnel and exploding grenades; fear for your own safety; the upcoming combat mission and worry regarding its success; enemy propaganda and the uncertainty on the battlefield as well as the rumours born out of the uncertainty.

The heavy mental pressure is felt by the soldier as fear and anxiety, for example. Fear is natural on the battlefield. Every soldier is afraid, especially in the beginning of combat operations. However, you learn to control your fear. An important characteristic of a good soldier is the ability to **control fear and completing the mission despite the mental and physical pressure.**

A soldier's performance on the battlefield is very much dependent on the person's ability to understand what is happening. The ability to interpret the events of the battlefield will help the soldier understand what is dangerous and what is not. Courage helps you to act efficiently and actively.

Commanding in combat strives for **proactive command and leadership.** The goal of proactive command is to break down the enemy's operation plan (OPLAN) and to seize the initiative. This forces the opponent to act reactively, whereby, when losing the initiative it loses the possibility to succeed.

An effective unit requires that on all levels the individuals can think for themselves, have initiative and trust their own skills and fellow soldiers. Individual **soldiers must understand their commander's intent and to be able to act automatically, instinctively and to independently evaluate the factors affecting the battle.**

The essential elements of combat and combat training are:
- reconnaissance
- maintaining contact with the enemy
- achieving surprise
- using your own personal weapon and crew-served weapons and technical equipment so that it comes to you automatically.
- centred use of force

- concealing your own activity and deceiving the enemy
- taking advantage of success
- preparing for unforeseen situations as well as
- the passing of information and
- situation-based command and leadership

5.2 Basic combat skills

Listed below are skills that every soldier must master in order to operate successfully in combat and to complete the assigned missions and tasks.

1. Good skills in using a weapon, hand grenade, light antitank weapon (LAW), mines and explosive charges and assigned equipment.
2. Ability to use cover provided by terrain. Skills to take cover from enemy observation and fire and the ability to advance as a fireteam by providing support and covering fire to each other.
3. The ability to choose a fighting position in attack and defence and to field fortify the fighting position (protection level 4).
4. Skills to operate as part of a fireteam and to cooperate.
5. Land navigation skills and skills to move of foot, skis and on a bicycle in all times of the year in all weather and lighting conditions.





6. Skills needed for being a sentry, scout, runner, guide and machine gunner and antitank soldier.
7. Skills for taking care of and maintaining weapons and equipment and to maintain your ability to function in constant combat contact. Skills for using working and personal protective equipment.
8. Knowing and being able to use confirmed arm and hand signals and light signals, Skills to communicate with your partner, your section commander and other fireteams. Ability to maintain situational awareness and to pass on observations to your partner, and your section commander.
9. Knowing how to use the most common communication equipment:
   - preparing for operation
   - selecting sending location
   - sending and receiving messages
   - maintaining communication equipment in working condition
   - knowing procedures for protection against electronic warfare
10. Skills for giving first aid to a wounded soldier:
    - assessing the situation at the scene of an accident and in combat
    - emergency first aid
    - using a battle dressing
    - transporting a wounded soldier
11. Knowing the international conventions governing warfare, the treatment of prisoners and actions as a prisoner of war (POW).

Fighting and marching load

The fighting load includes the equipment and supplies that are necessary for the soldier to be able to survive and fight effectively on the battlefield. The section leader determines the necessary changes to the kit based on the mission, time of year, weather or other reasons. Packing the fighting load identically makes it easier and faster to find magazines and special equipment as well as the first aid kit, when the kit/load changes or when you have to find these items in the kit of an incapacitated soldier.

A soldier must know how to effectively use all of the pieces of kit in the fighting load. A soldier knows how to fit, pack and camouflage his fighting load. A soldier is proficient in the use of a weapon, bayonet, entrenching tool, knife and axe and personal protective equipment. A soldier must know how to dress appropriately for the weather conditions so that he maintains his ability to function. In addition, a soldier also needs to know how to maintain and fix his fighting load. A soldier must be able to fight at least for a day or a combat phase with the equipment and ammunition that he carries.

In addition to the fighting and marching load a soldier must be able to carry a load of 15-25 kilograms.

In addition to this, the soldier must be temporarily be able to carry 5-10 kg. This includes such items as ammunition, hand grenades or smoke grenades. The kit may also include flares, explosive charges, light antitank weapons, mines and combat rations. The weight of the kit must not be more than 1/3 of the soldier's weight.

Pack your gear into the rucksack in plastic /bags to keep them from getting wet. Pack equipment that you need fast access to, such as ammunition, in the side pockets of the rucksack.

Adjust the fighting load and the rucksack so that they do not chafe against you back and so that they do not make noise. Place special equipment such as antitank mines on your back below the webbing and the smoke grenades in the pocket. Place the entrenching tool and bayonet so that they are easily accessible.

» *In the field, the fighting and marching loads must always be kept packed and only the things actually needed at the time are removed. This way you maintain your combat and movement readiness and you no not lose any gear!*

An example of a soldier's kit

Fighting load

- Weapon
- Helmet, helmet cover / hood
- Webbing/ load-bearing vest
- Magazine pouch
  - 3 magazines
- Utility pouch
  - 2 magazines
  - Canteen, filled with water
  - Battle dressing
  - Special equipment
- Gear pouch
  - Cold weather jacket
  - Thermal underwear
- Hand grenade
- Bayonet
- Entrenching tool
- Rear pouch
  - CBRN respirator, right
  - Rain gear/ poncho, left
  - Mess kit, centre
  - Rations for 24 h
- In uniform pockets
  - Spoon-fork
  - ID-card
  - Note-taking accessories
  - Note-taking equipment
  - Matches, ear plugs
- Around the neck
  - Military ID-tag



M/05





M/91



Marching load (in addition to fighting load)

- Reserve water carrier (1 litre)
- Underwear set
- Socks
- Thermal underwear, scarf
- Leather and woollen mittens
- Patrol cap, winter cap, wool cap
- Spare shoes (rubber boots)
- Sleeping bag and sleeping mat
- Hygiene and shaving kit;
  - soap, toothbrush and toothpaste, towel, toilet paper

In addition, in the winter

- Rubber boots with felt liners
- Snow camouflage suit
- Thermos
- Skis, ski poles, bindings, ski wax
- Winter camouflage cover for rucksack

The fighting load may include mission specific equipment, such as

- Mess tin, fuel for mess tin, can opener
- Combat rations
- First aid kit
- Map and map cover
- Torch
- Insect repellent
- Sunglasses
- Patrol rope
- Reflector



Camouflaging the fighting load

- attach the helmet cover onto the helmet
  – **cover smooth, glossy surface**
- attach strips of camo netting or vegetation onto the helmet
  – **break up the regular shape**
- wrap strips of camo netting around the weapon
  – **cover smooth surfaces**
- attach strips of camo netting onto the webbing
  – **break up the regular shape**
- attach strips of camo netting onto the rucksack
  – **break up the regular shape**
- lace the trouser legs on top of the boots
  – **cover the reflector bands**
- apply camo face paint or soot to exposed skin
  – **break up the regular shape**

Maintaining the fighting load

- remove the camouflage and clean your uniform of loose dirt,
- wash your boots, empty and clean your rucksack and webbing
- clean your weapon,
- clean and dry the wet equipment in a drying room or in a tent,
- clean your protective gear,
- wash and dry the mess kit, eating utensils, canteen and thermos
- prepare dry boots for next use
- exchange broken gear and clothes for intact ones and
- pack the ready to use fighting load for the next mission or put it in your locker.

Camouflaging the face and exposed skin

Apply a light coat of camo face paint or soot on the face, backs of the hands and front and back of the neck.
Break up the shape of the face with dark diagonal vertical lines that cover the eyes, nose and mouth.
Finish the camouflage with another colour. Finally, lightly wipe the face with moist hands to even out the colours. A quick camouflage can be made by taking coal or dirt onto the fingers and making vertical lines over the face with it.

Finally, partners will check each other's fighting load's camouflage and complete it if necessary.

Movement and weapon carrying techniques

A soldier must choose the most advantageous – protected and fast – movement technique that best suits the situation and route. The weapon is mostly carried according to the section commander's example. The weapon is always carried so that it does not point toward soldiers in the section.

» *Every carry method must make it possible to open fire quickly!*

The weapon is mostly carried in both hands with the stock of the rifle against the shoulder

- the barrel is pointed down while on sentry duty, advancing in single file or on the march,
- the barrel is pointed in the direction of observation when advancing in a section file and the situation requires heightened readiness or
- the barrel is pointed in the direction of travel when advancing in a section line
- finger off the trigger.

The weapon sling can be behind the neck for easier carrying. The sling must be adjusted to be so long that firing aimed shots is possible.

Weapon readiness is increased in phases as the situation requires, so that

1. the thumb is moved to the selector switch
2. the selector is set on single and the trigger finger is straight against the receiver cover
3. the weapon is aimed at the target or the direction of observation with the trigger finger, the stock of the weapon against the shoulder or in sudden situations the stock supported in the armpit.

When the weapon is not on safe it can fire for example if the weapon carrier trips or when the trigger hits a tree branch. When the finger is on the trigger, the weapon can fire for example when the weapon carrier is startled. This is why the safety should be disengaged only when firing is likely and the finger moved to the trigger when the decision to fire has been made.

The weapon is carried on your back when the situation calls for it, for example when driving a bicycle. In skijoring the weapon is held in the back with the barrel pointing up and the stock of the weapon away from the skijoring towing rope.

When skiing, the weapon can be carried slung across the chest with the barrel pointing up and the sling on the shoulder. The weapon may be carried with the sling on the shoulder, barrel pointing down, when marching in single file, when contact with the enemy is not likely.

» *Keep the weapon on you or at an arm's reach. Carry the weapon so that it does not point toward soldiers in the section. Have the weapon on "safe". Move the selector off safe only before using the weapon. Carry the weapon so that you can open fire quickly.*

Examples of individual movement and weapon carrying techniques

The pictures show possible ways to carry a weapon.



On foot
Carry the weapon in the way required by the combat situation.



Running
Carry the weapon in the way required by the combat situation.

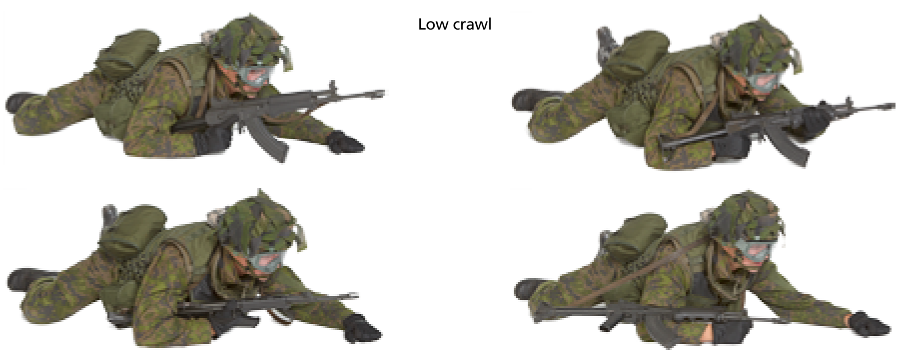


Stalking
Use this when you try to move as silently as possible and the mission requires special alertness. When necessary, stop to observe and to select the best route. Carry the weapon at the low ready or high ready position.



High crawl
Carry the weapon around the neck or in your arms with the stock in the armpit.

Low crawl



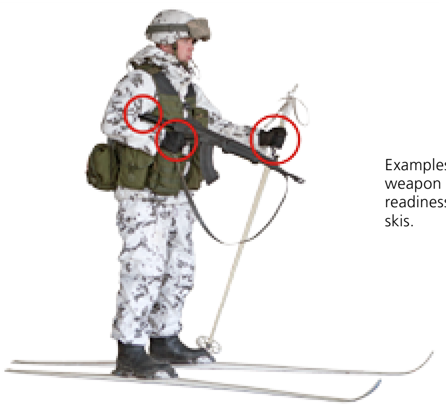
Example of rushing



Examples of individual movement and weapon carrying techniques in the winter



When skiing, have the weapon slung around your neck with the sling at combat length when the situation does not require a high readiness to use the weapon.



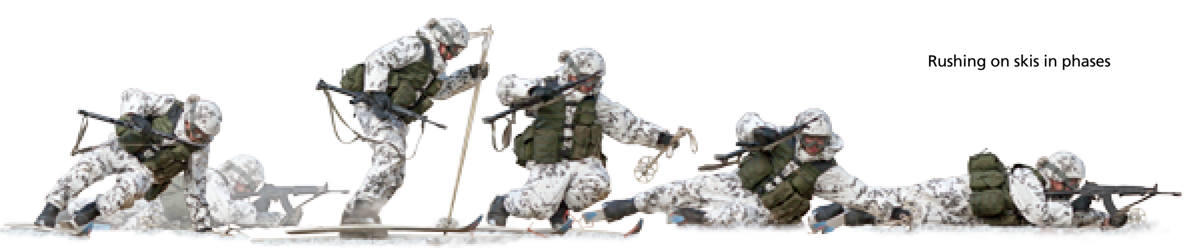
Examples carrying the weapon during raised readiness when wearing skis.





When taking cover wearing skis, throw yourself forward at an angle towards the direction of travel.

Rushing on skis in phases





In combat, start preparing fighting positions even during a short stop.

Accounting for enemy observation and fire while advancing



When you stop, use concealment and be ready to move to cover from firing.

Plan your moving route in advance. Select temporary positions from firing position to fighting position or from cover to cover. To get cover use depressions in the ground, shell craters, ditches, backs of hills and shaded locations. Take cover when you stop and cover your partner's advance.

Advance in rushes when the enemy is firing. Keep the rushes short, for example three steps at most. A rush should always end in an as good as possible fighting position. If you have to rush a long distance, advance at the best possible speed. Do not rush when you are in a dead angle or unseen, but use the fastest method of advancing that the terrain allows.

The effect of cover on the size of the target.



Using the assault rifle in combat

Weapon handling
Weapons can be handled using the firing hand or the support hand. With the support hand technique the rifle is held in the firing hand while supporting the weapon in the armpit and holding the barrel of the rifle towards a safe direction. All other activities relating to handling the weapon are mainly done with the support hand. For example single hand arm and hand signals are given with the support hand. All other activities, such as adjusting the sights, operating the radio or using a light, picking up objects or opening doors is done with the support hand.

Example of loading the weapon with the support hand technique.





The arrow shows the support hand's movement directing while loading the rifle, as well as the minimum moving length.

- The barrel is pointed in a safe direction.
- The stock of the rifle is firmly under the arm and stops the rifle from moving side to side.
- Finger away from the inside of the trigger guard.
- Tilt the weapon.
- Move the selector switch to the lowest setting.
- The palm of the hand touches the charging handle (RK62 and adapted to RK95).
- The charging handle is pulled back and released by letting it go.

Most common weapon readiness handling techniques:







Firing stances

The firing stances are the standing, kneeling and prone position. In addition, a soldier may use improvised stances. The shooting, high and low ready weapon states may be used in all stances. The firing stance is changed in a combat situation when required to improve your own cover and to get a more a stable firing position. For example, when on the move, firing will be started in the standing position, then you drop to a kneeling position and from there to a prone position.

Select a stance that best suits the situation

Usually in combat there is very little time for **choosing a firing stance** and opening fire. In this short time period the soldier must observe the battlefield and

- decide whether to take cover or to shoot
- select a target
- choose a firing stance and the use of possible temporary support
- locate the target, take the safety off, aim and fire
- after an observed hit, make sure the opponent is no longer able to fight
- continue firing to destroy the target or select a new target or take cover and continue carrying out the mission.

It must be remembered that often the soldier is also under fire at the same time.

A quick opening of fire is based on situation specific weapon carrying, being comfortable with handling the weapon (using the combat sights and the selector switch) and being prepared to open fire (readiness to get into a firing stance).

A firm shooting stance is a basic requirement for hitting a target. In a combat situation you should always try to use some kind of support in all firing stances. A support can be a support mounted on the edge of the fighting position, your rucksack, a tussock, tree stumps and fallen or small trees.

The support hand should be kept between the weapon and the support itself. Having the support hand between the weapon and the support keeps the weapon from moving while firing and makes keeping the sights on target easier during successive shots and makes switching targets easier.

Use the prone position always when possible because

- it is the most stable firing position and the probability of hitting the target is high already on the first shot
- the shooter's own target silhouette is small and the shooter can take advantage of the cover provided by the terrain
- the shooter can almost always support the magazine against something and often also find a temporary support for the weapon.

The prone position is usually used in fast situations after opening fire, when there is no prepared fighting position available.

Use the kneeling position when

- it is not possible to use the prone position because of vegetation, snow or other observation obstacle
- you had to start firing from a standing position.

After that the shooter will move to a more stable firing position while making himself a smaller target and getting behind cover.

Things, such as a tree can be used as a temporary support. Move to a better firing position from the kneeling position as quickly as possible and continue firing from the prone position.



Prone position with the magazine supported against the ground.



Prone position without magazine support.



Prone position with the hand supporting the magazine.



Low kneeling position from the front and from the side.





Double kneeling position from the front and the side.



Use the standing position when

- you have to open fire quickly or while moving
- it is not possible to use other positions because of vegetation, snow or other observation obstacle.

In the standing position things, such as a tree or a structure can be used as a temporary support. Move to a better protected and stable firing position from the standing position as quickly as possible and continue firing from the prone or kneeling position.

When firing from a fighting position the supporting hand must be between the weapon support and the hand guard. Both elbows must be able to be supported on the weapon bench. The upper body must lean against the stock of the weapon so that the weapon is pressed firmly against the support.





Symmetrical standing position from the front and from the side.





Asymmetrical standing position from the front and from the side

Handling the assault rifle and firing

Cover the barrel so that no sand or snow enter the barrel. During combat, check that the sights are clean and the rear sight is in the correct position.

Use single fire or quick double taps. Automatic fire is used only in short bursts and in special circumstances such as personal air defence and in quick close quarter battle, for example when clearing a trench. Remember that a full magazine of an assault rifle will be empty in less than 3 seconds when firing on automatic.

Remember, on land you can also fire through an obstacle with an assault rifle. A rotten tree stump, a thin tree or other form of concealment will not stop a bullet. When you are selecting or fortifying a fighting position, remember what the protection level of different materials is.

Keep an eye on your ammunition usage. The magazine's ammunition count can be seen from the holes on the arched side of the magazine. In a full magazine the ammunition can be seen both from the upper and lower holes. In a magazine with at least 10 rounds, the back of the ammo can only be seen from the top holes.

Change the magazine while in cover. In a fortified fighting position, change the magazine as quickly as possible and continue firing at the enemy. If possible in the combat situation, change to a full magazine and reload the short magazine. Place the full magazines in the pockets of your webbing with the mouth of the magazine up and rounds forward and the empty magazines with the mouth of the magazine down. See where your rounds hit and if necessary, adjust the sights during breaks in the fighting. Practice using the assault rifle also when wearing body armour.

Night combat

Zero in the night sight when told to do so by your section leader. In the fighting position check the support for the weapon and the limiting stops. Activate the night sights by pointing a light at them in your sleeping area. Flip the night sights up already before darkness falls. If the section has night vision equipment (image intensifier), the orders for use will be given separately to get the maximum benefit. Tracer ammunition will be used to direct the fire in the dark.

When using tracers, they can be for example every third round in the magazine. Use separate magazines for special ammunition and mark the magazines for example by putting an attaching strap around the magazine. This way, you will quickly identify the magazine also in the dark.

Winter combat

Clean the weapon thoroughly and clean the bolt and the bolt carrier of oil. Keep the weapon outside of the warm sleeping area or on the cool side of the tent to keep moisture from condensing and to keep the weapon from freezing. However, there must be at least one weapon inside the bivouac tent.

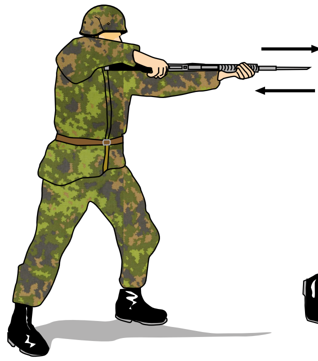
Close quarters battle

In the battlefield, it is possible to find yourself suddenly in close quarters battle (CQB) in every situation. Close quarters battle means fighting in touching range and up to approximately 40 metres. When the enemy is close, the soldier may not have the chance to choose what to fight with or to use cover to his advantage.

The most important things in close quarters battle are initiative, determination, ruthlessness, aggressiveness and speed. The objective is to destroy the enemy as quickly and effectively as possible, using any means necessary. Primarily a firearm, hand grenades or other combat equipment should be used. Other equipment include a knife, a bayonet, a billhook, an axe and an entrenching tool. The enemy should be destroyed by using your bare



Starting stance



Short thrust



Long thrust

hands if necessary. In close quarters battle you should try to be aware where friendly and enemy soldiers are. Knowing the effectiveness of your own weapons and the protection levels of materials will help surviving in a CQB situation.

The goal is to use a firearm on all distances, also in a touching distance. You can also use the firearm to thrust or to hit if it is not operational, you have run out of ammunition or you have friendly soldiers in the line of fire. The firearm should be made operational as soon as the situation allows.

Using the bayonet

A bayonet will be attached to the assault rifle when CQB against the enemy is likely. The bayonet is not normally attached to the weapon because it raises the bullet impact and makes weapon handling difficult. A bullet is always faster than a bayonet so it is better to shoot than to use a bayonet.

Striking with the assault rifle

The assault rifle can be used as an effective weapon in CQB. The starting stance makes blocks, thrusts and strokes possible. Thrusts include short and long thrust. The thrust is done as a continuous move by thrusting the bayonet into the target, by turning it left or right and then pulling the weapon back to the starting stance. The basics strokes are butt strokes and barrel strokes. A slash with a bayonet can be included in the barrel strike and then followed by thrusting at the opponent.





Confirmed arm and light signals

The platoon and section leaders will lead their unit in combat by example, with arm and light signals and with short orders. The orders will be passed on inside the section and platoon. Every soldier will repeat the given order or signal.

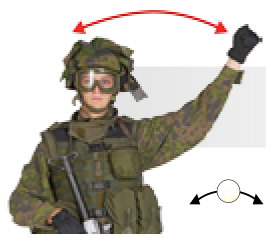
General signals used when leading a unit

General signals



Huomio valmis (Attention ready)

Green continuous light



Ilmahälytys (Aerial attack alert)

White light back and forth in a semicircle



Liikkeelle (Move out)
Mars! (March!)
Nopeammin (Double time)
- when shown rapidly several times

Green light vertically back and forth



Vihollista on (Enemy in sight)
Weapon pointed towards enemy



Seis (Stop)
Stop and take cover

Red light back and forth in a semicircle



Vapaa vihollisesta (No enemy in sight)
OK
Kyllä (Yes)
Ei ongelmia (No problems)



Asemaan (Stand to)

Red light vertically back and forth



Kokoon (Assemble)

White light in a large circle



Ilmavaroitus (Aerial attack warning)

White light vertically back and forth



Alijohtajat kokoon (Leaders assemble)

Blinking white light

Signals for vehicles



Ajoneuvosta nouse (Dismount)

Blinking green light



Käynnistä moottori (Start engine)

Green light in a small circle



Eteenpäin (Forwards) Huomio! (Attention!) Thumbs away from the body

Green light vertically up and down

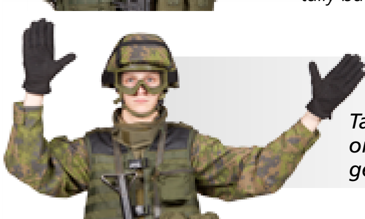


Taaksepäin (Reverse) Huomio! (Attention!) Thumbs towards the body



Hitaammin (Slow down)

Green light horizontally back and forth



Taaksepäin loivasti oikealle (Reverse gentle right)



Eteenpäin jyrkästi oikealle (Forward hard right)



Taaksepäin jyrkästi vasemmalle (Reverse hard left)



Etäisyys (Distance)



Seis (Stop)

Red light back and forth in a semicircle



Seuraa (Follow) Held in this position while moving longer distances



Sammuta moottori (Stop engine)

Blinking red light



Ajoneuvo liikuntakyvytön (Vehicle immobile)

Red light in a large circle

Hand signals used in combat formations



Suunta
(Direction)



Avoriviin vasemmalle
(Line to the left)



Avojonoon
(Single file)



Kiilaan
(Wedge)



Avoriviin
(Line)



Ryhmäparijonoon
(Section column of twos)



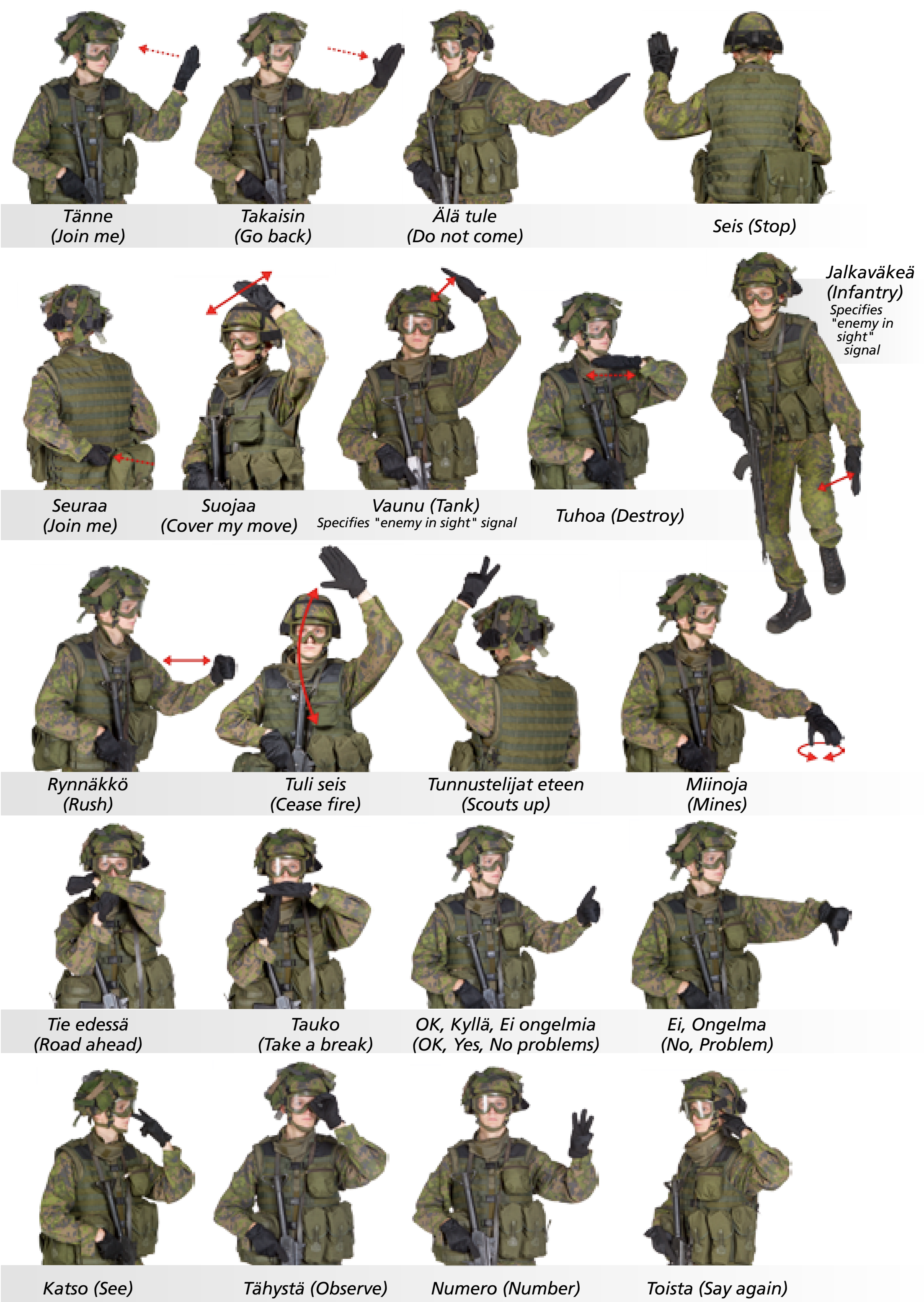
Avoriviin oikealle
(Line to the right)



Ryhmäriviin
(Section line)

Hand signals used in leading a fireteam and section

» *The unit instructor or leader determines the hand and arm signals in use*



Taking cover in the battlefield

The enemy will try to cause casualties to friendly forces by aircraft, helicopters, indirect fire, direct fire, armour, mines and CBRN agents. The enemy can direct its weapon effect on our forces in all lighting and weather conditions. However, forest-clad terrain, snow, darkness and bad weather conditions will make enemy actions much more difficult.

The significance of electronic warfare in the battlefield has increased. The enemy gathers intelligence by monitoring systems and equipment that emit electromagnetic radiation, such as radars and radios. Another target for intelligence, in addition to visible light, is radiation that the human eye cannot see, such as thermal radiation.

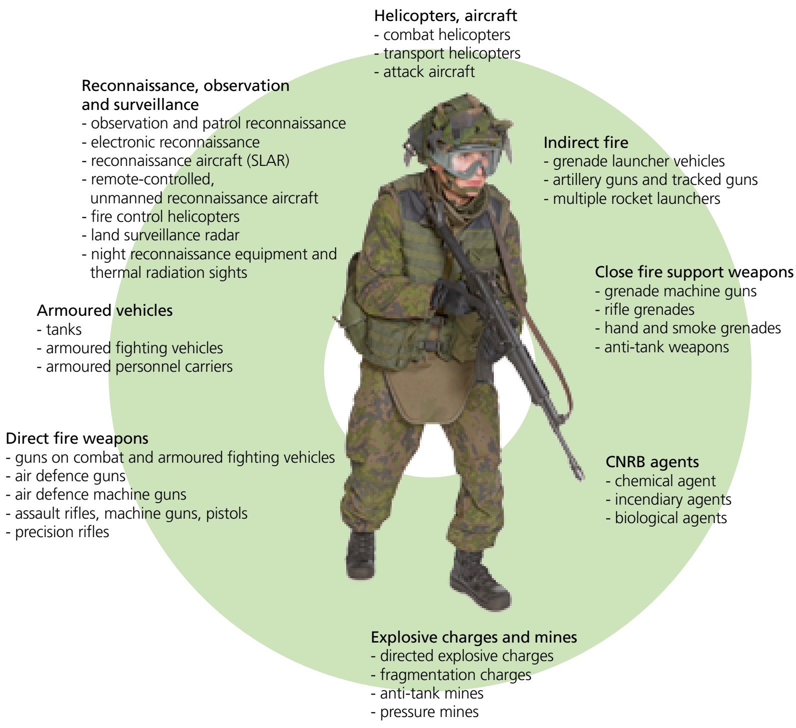
During combat the enemy will try to find our systems and equipment that use electromagnetic radiation. It will try to interfere with them and to prevent their use either by jamming or by destroying them by using weapons effect such as indirect fire against them.

A soldier must seek cover and concealment against the enemy's observation, intelligence gathering and weapon effect. Operating procedures on the battlefield must fit the situation. A soldier must be able to prepare for and to prevent also dangerous situations caused by his own actions.

The purpose of body armour is to lessen or prevent the weapon effect against a soldier. The proper use of body armour can lessen casualties caused by shrapnel and bullets.

Depending on the unit's organisation and mission the soldier's protective equipment can include, for example helmet, visor, eye protection, ear defenders and body armour. The CBRN protection equipment includes CBRN respirator and rain poncho or rain suit and CBRN antidote auto-injector. In addition, a soldier's kit includes a battle dressing.

Active protection prevents or makes the enemy's activity harder. Active measures include destroying the enemy's surveillance and intelligence as well as communications equipment,



destroying its weapons and ordnance, clearing or destroying mines, personal air defence, causing casualties to the enemy, paralysing their operations or destroying the enemy.

Passive protection prevents the enemy from observing our activity, makes targeting more difficult and makes the target more durable against weapon effect. Means include camouflage, dispersing units, deception, concealment, mobility, using the terrain to your advantage and fortification.

A soldier's camouflage includes the combat uniform and camouflaging exposed skin and fighting and marching load. The material of the modern combat uniform reduces thermal radiation and makes detecting the soldier more difficult. Concealment includes camouflaging and concealing the fighting position, tent, vehicle and section's equipment. Fortifying a fighting position is a soldier's most effective protection measure. The correct use of terrain provides cover. Choosing the route of advance and fighting position will protect against enemy observation and direct fire.

Electronic protection measures try to enable the effective use of own communication and weapon systems despite the enemy's electronic intelligence, jamming and deception as well as the use of fire together with those means.

Means of electronic protection:

- Use the cover provided by terrain whenever possible (defilade against the enemy).
- Prepare the message, minimise transmission time, if necessary, divide the message into parts.
- Avoid unnecessary messaging and voice communication
- Use a directional antenna whenever possible
- Use the smallest functioning power output
- Only use intact equipment



Movement gives away your position

Protection against observation and observing the enemy

Movement gives away your position

- particularly sideways movement in relation to the observation direction
- movement during illumination
- soldier
- section
- vehicle
- camo net swinging in the wind
- swaying vegetation

» *Take cover by stopping or by throwing yourself to the ground*

Reflecting surfaces give away your position





Tracks give away the position up to a distance of 4,000 metres.

Background can give you away

- movement route
- selecting a fighting position
- selecting a sentry post
- camouflaging the fighting load

» *Choose a protected route of advance and fighting position*

» *Make sure you do not stand out from the natural shape of the surrounding terrain when in your fighting position*

Reflecting surfaces and regular shapes will give away your position

- face, hands
- weapon, tools
- binoculars
- mess kit
- vehicle windows

» *Camouflage bare skin and fighting load*

Tracks will give you away

- selecting movement route
- rubbish
- clearing you firing sector of plants and trees
- traces of fortification

» *Don't leave tracks or waste*




Smoke and light give away your position

Fire and lights as well as heat, smoke and smells will give away a position

- tracers
- muzzle flashes
- wrong use of flash light
- wrong use of vehicle lights
- smoke and smell of tent stove
- cigarette smoke and smell, exhaust fumes
- camp fire
- unobstructed view of warm surfaces

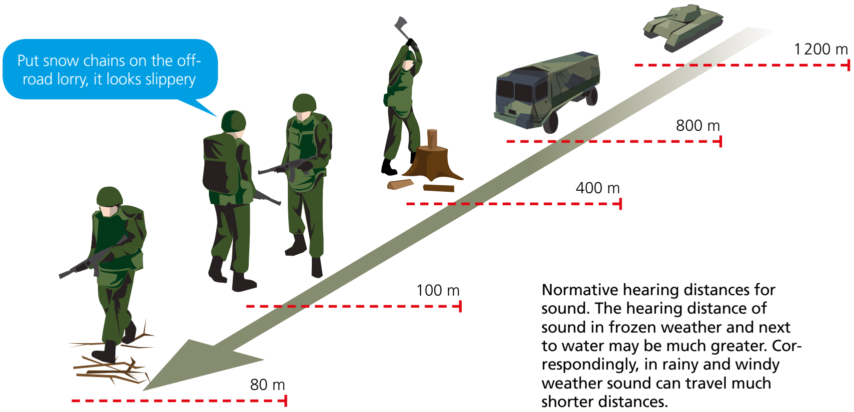
» *Avoid using lights in a fighting position, it is only permitted to use lights under a poncho in a fighting position*

» *Place the camo material far enough from the camouflaged object, so that the material itself does not heat up*

Noise gives away your position

- shouted commands
- noise made by wrongly packed or handled fighting load
- noise and sounds distinct to enemy weapons, such as rate of fire
- loud talking
- carelessly adding wood to the tent stove
- vehicle noises
- trip flares
- departure shots
- noises from careless movement

» *Act silently, use signals*



Normative hearing distances for sound. The hearing distance of sound in frozen weather and next to water may be much greater. Correspondingly, in rainy and windy weather sound can travel much shorter distances.







Using a camo net and loose camo materiel in camouflaging

Regular shapes give away the position

- fortifications
- protective mounds
- clearing you firing sector of plants and trees

» *Break up the regular shapes with concealment and camouflage*

Shadows give away your position

- soldier
- vehicle
- tent
- crew-served weapons

» *Take advantage of shady areas*

Colour gives away your position

- uncamouflaged hands and face
- uncamouflaged tent and vehicle
- dried layer of camouflage
- rubbish

» *Camouflage your fighting load and the section's materiel*

Badly chosen route of advance gives away your position

- point man
- runner
- scout

» *Choose a protected route of advance and use the cover provided by terrain*

Darkness will not conceal your actions

- night sight
- flares
- motion detectors
- ground surveillance radar

» *Take cover as you would during daytime*

» *Using a flashlight is only allowed in the sleeping area, the covered part of the fighting position and under a rain poncho*



Take cover against indirect fire by throwing yourself on the ground. When the shelling weakens move to better cover, if available.

Fragmentation effect of artillery and mortar shells on different targets

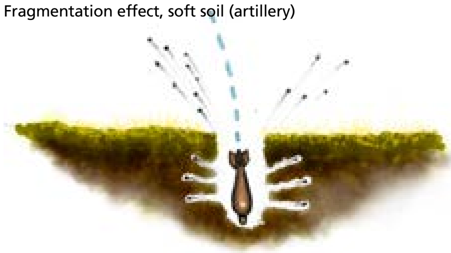
Fragmentation effect in ground burst
hard soil (artillery)



Fragmentation effect, hard soil (artillery)



Fragmentation effect, soft soil (artillery)



Fragmentation effect, in the air or a tree (mortars)



Protection against indirect fire

Throwing yourself on the ground is the fastest way to protect yourself against indirect fire. Cover the muzzle of your weapon with your hand when taking cover. Take cover in a depression or a ditch an pull your weapon under your body. Use your other hand to protect your neck and pull your feet together. Prepare to move to better cover if there is a break in the shelling. Follow the section leader's example and keep an eye on his hand and arm signals.

Begin fortifying the fighting position when the firing sector has been cleared of vegetation and signs are given for the fighting position. Fortify the fighting position up to the assigned level. Camouflage the fighting position. Take cover against indirect fire in the part of the fighting position with overhead cover. A fighting position with overhead cover provides good cover against the fragmentation effect of indirect fire.

Taking cover from direct fire

Conceal yourself from observation. Do not select a fighting position in a prominent feature of terrain. Construct sufficient protective parapets for your fighting position. The basic principle is that you cannot be fired on from outside your own sector of fire. The protective parapets may not stand out from the terrain and give away the fighting position. Camouflage the fighting position. Remember the protection levels: you should have enough protection particularly in front of the weapon support.

Protection against direct fire is provided by

- rocks
- ditches
- mounds and ridges
- concrete structures (minimum 20 cm), generally apartment blocks
- armoured vehicles.

Choose a protected route of advance. Take advantage of the terrain so that your target silhouette is as small as possible. Throw yourself on the ground if suddenly fire upon and then move to the best possible firing position.

Taking cover from sniper fire

The task of enemy snipers is to destroy living force and to create a continuous threat of being targeted. Sniper targets include leaders, forward observers, spotters, sentries, machine gunners and anti-tank and missile soldiers.

A sniper can take out a target in daylight from over 1,000 metres away and at night from a distance of under 500 metres. A sniper is well concealed and will fire only a few shots from the same firing position to avoid being detected.

A soldier can protect himself against a sniper by camouflaging bare skin, his weapon, helmet and fighting load. The sentry post, observation post and fighting position must also always be camouflaged.

Stay low and behind a camo net when observing the assigned area or use a periscope. Do not give away the sentry or observation post or fighting position with lens reflection, flashlight use, radio antenna or by smoking. Move to the fighting position via the trench.

Protection against main battle tanks

Protection against main-battle tanks is mainly based on protection against visual and thermal observation and detection until the enemy is within the effective range of friendly anti-tank weapons.

While in defence the unit builds nuisance minefields, mine rows, abatis and other barriers and demolitions to restrict and channel the movement of the tanks. Main battle tanks will try to destroy the defender from outside anti-tank weapon range. Tank main guns and autocannons are capable of accurate fire over a distance of 2 km. Defensive positions and fighting positions should not be planned in such terrain where enemy tanks can fire upon the defender's position from outside of the range of antitank weapons. For example, units should not be deployed to the edge of a clearing, but it is better to deploy your units deeper inside the forest.

In the attack, the tanks will be destroyed with the section's disposable antitank weapons. When taking out the tanks, the rest of the section should cover the antitank soldiers. The antitank soldiers must take advantage of the cover provided by terrain when advancing to a flanking firing position, take advantage of natural sectors of fire, choose the best firing stance and prepare to flexibly move to another firing position. During the attack, especially at the objective, nuisance minefields are built on the assumed tank avenues of advance. The fire of the anti-tank weapons of the section will be concentrated on the nuisance minefield.

Tanks have very good optics toward the direction of its main gun and to the front sector

Examples of mines used by the enemy



Anti-personnel mine

Anti-tank mine

Scatter mine, personnel

Scatter mine, anti-tank



in general. The tank commander has a rotating dome on top of the tank so that he can also observe other directions. The area near the tank he can best see by rising out of the hatch. Right next to the tank are dead angles that the tank crew cannot see. Usually the rear of the tank has the largest dead angle. Because of the dead angles, infantry usually advances with the tanks to protect them and also the tank coming behind monitors the area close to the front tank. The dead angles close to the tank depend on the tank type and model. Units are prepared to blind the tanks with smoke. The fastest and most surprising smokescreen can be created with phosphorous grenades. The tank can also use its own smoke grenade launchers if it notices it is within the kill zone of antitank weapons. Tanks that have stopped in a minefield are destroyed with antitank weapons.

Actions in a minefield and when discovering unexploded ordnance

On the battlefield the enemy uses minefields in general to make the opponent's movement difficult, to deny the use of an area and to protect its own activities. When finding the unit in a minefield, operating ability is maintained by using practised techniques and tactics, which include the mnemonic "SIMOT".

Actions when discovering mines or signs of mines

SEIS (STOP)

- Stop where you are.

ILMOITA (INFORM)

- Your unit immediately by shouting "SEIS – MIINOJA!" (STOP-MINES), or by hand signals if the situation does not allow voice communication.
- Switch off all radio sets.
- Check your immediate surroundings (protective area) visually within a metre.
- Also, check your protective area and steps with a probe if you suspect conventional mines.
- Trace your way back using the same steps you came for at least 100 metres.

MERKITSE (MARK)

- The estimated safe distance.
- Prevent others from walking into the minefield.
- If necessary, evacuate the wounded.

OPASTA (GUIDE)

- Find a detour.
- Guide personnel to the detour.

TEHTÄVÄ (TASK)

- Continue mission when instructed by your section leader.

» *Mnemonic for mines*
Seis (Stop)
Ilmoita (Inform)
Merkitse (Mark)
Opasta (Guide)
Tehtävä (Task)

5.3 Soldier's actions in combat

General principles

Success in combat requires knowledge of the general principles and standard operating procedures of combat and the ability to apply them to practice as needed.

1. **Maintain you will to fight. The objective is victory.** The goal is to undermine and break the enemy's morale. A soldier's battle is defeating the enemy on the battlefield. A soldier's victory is accomplishing his mission with as few casualties as possible. The enemy's will to fight is broken when his mental or physical endurance runs out, when the enemy is no longer able to act and he is unarmed or destroyed.

2. **Be proficient in the basic tactics and techniques.** Combat requires the soldier to act instinctively and seeing the big picture as well as independent decision making and assessment of the situation. Only by being confident in the basic tactics and techniques can you act systematically in exceptional circumstances. Knowing the basic techniques well is a requirement for applying them quickly when the situation calls for it.

3. **Maintain combat readiness.** A soldier's weapon must always be functional and ready for use. A soldier must observe his operating environment and maintain his combat readiness as dictated by the situation and his section leader.

4. **Act quickly. Be active.** From a soldier's perspective, combat is often close quarter battle against enemy soldiers. In close quarter battle the winner is the one who is more likely hit a target and who opens fire the quickest. Actions by the enemy will force the soldier to take cover from fire and observation. Taking cover quickly is a requirement for survival. The quick actions of a soldier will affect the activities of the section and platoon. Slow actions of an individual soldier will slow down the entire section and platoon. A soldier must always strive to act quickly and as trained. The section leader will order combat readiness and raising it. Quick actions can often seize the initiative and through that force the enemy to react to what is happening. This way you can keep the advantage or change the situation so that it becomes advantageous for you. The requirements for quick actions are correct situational awareness and activity as well as anticipating the enemy's and your own actions.

5. **Always try to achieve surprise.** A soldier must always strive for surprise in combat. With surprise you can even beat a larger enemy force. Surprise can be achieved with time, place, method of action and the amount of force used. A soldier can surprise the enemy with a quick opening of fire, silent action and speed, taking advantage of the terrain and conditions, the pattern- like actions of the enemy, by distracting the enemy and doing things differently than standardised. You should try to hit the enemy in its weakest point from the flank, or rear by hitting an unprotected location. If surprise is achieved, the enemy's strongest point is destroyed first. Achieving surprise requires knowing the actions of the enemy and preparing your own actions and conducting reconnaissance. The mission must be carried out purposefully and flexibly by using all opportunities. Do not let the enemy surprise you - also the enemy tries to surprise you.

6. **Use fire, movement and cover.** The basic elements of combat are fire, movement and cover. Fire destroys the enemy and its equipment or prevents the enemy from firing. A soldier's fire consists of firing the assault rifle, using hand grenades and the fire support of your partner. Tanks are

destroyed with antitank weapons. In the attack you must fire and move as part of the section so that the enemy is continuously under fire and is destroyed. A soldier will rush from firing position to firing position from where it is possible to destroy the enemy. Advancing will be covered by using the best terrain and by choosing the attack route and firing position. From locations that are protected from enemy fire you should advance by using the quickest way possible. A soldier's cover and concealment is made up of your fighting load and body armour, camouflage, choosing the attack route and fighting position, fortification and support from your partner and the rest of the section. Friendly action can also be concealed by using smoke.

7. **Act together with your team partner or fireteam and as a part of the section.** In almost all combat activities the soldier will act together with his partner or fireteam. Cooperation requires agreeing on operating procedures beforehand, communicating during the battle and supporting your partner. The fireteam will almost always function as a part of a section. This requires following the section leader's example, hand signals and orders and conveying your own observations to your section leader. A soldier must think of his task and place from the perspective of the actions of the fireteam or section.

Situation awareness and operating models in combat

A soldier is not accomplishing his combat mission, if he does not know what is happening on the battlefield. The mission is not accomplished if the soldier does not know what to do, does not know how or is not able or willing to act. In order to accomplish the mission, the soldier must have observation skills, knowledge and skills, will and ability to function. A soldier must also withstand and control the mental and physical stresses on the battlefield in a battle that lasts for several days. It requires good physical condition.

A soldier's decision making in combat is applying experience-based information and operating procedures to deal with the situation, often under immediate threat of death. There is very little time for situation assessment, maybe a few minutes at most.

Situation awareness means the soldier's awareness of the factors that affect the activity and decisions in a certain situation. Situation awareness is the soldier's understanding of the mission, the enemy and its actions, of friendly forces and operating environment as well as his own weaponry and equipment.

It requires that the soldier will always observe his surroundings, analyse what he sees, hears and smells and that he decides how to act. Everything that can affect the actions and decisions should be observed. An observation can, for example, be a sighting of the enemy, a muzzle flash, the sound of an exploding grenade or something similar.

The soldier must be able to pick out the most vital pieces from the information flow to support his decision making. He **must be able to choose the critical factors from his surrounding,** to understand their meaning and to fit them into his own actions. In addition, he must anticipate the enemy's actions and his own measures.

Experience will help in a combat situation. The speed and effectiveness of an experienced soldier is based on quickly analysing information and turning it into actions. An experienced soldier can take advantage of models of similar situations that he has learned in training or through previous combat experience.

A soldier's actions can be looked at through three simplified operating procedures or models. The first is anticipating and almost automatically reacting to the enemy or to other external stimuli. The second is immediate action according to the section leader's example, signal or order.

The third is independently carrying out the combat mission together with his partner.

» *1. Anticipatory instinctive actions*
2. Immediate action according to the section leader's example, signal or order.
3. Independently carrying out the combat mission together with his partner.

In combat the soldier must use all three and apply them to accomplish the mission. The operating models complement each other.

In the first, **anticipatory model,** the soldier acts almost instinctively, based on his observations and training. He for example, takes cover, opens fire or supports his partner. Effective action therefore requires continuous observation, readiness to act, ability to react and confident mastering of the basic skills. If the soldier does not see the enemy actions or reacts too slowly or erroneously, he will be wounded or killed.

In the second, **immediate operating model** the section leader will give tasks to the fireteams and soldiers with hand signals or short orders. The soldier must also be able to act only based on the example of his section leader.

The orders of the section leader are short and often include the method for accomplishing the task or mission. The basis of the orders are built on enemy action, operating models learned in training and actions trained to the level of automation. The soldier is always required to follow the section leader's example, hand signals and orders and quickly comprehend them. In addition, he must see his task and place in the actions of the section and its combat.

In the third model, **the soldier independently carries out the combat mission together with his partner or fireteam.** Examples include the duties of a sentry, military police, point man, crew-served weapon gunner, fireteam leader or assistant section leader.

In these situations the section leader may not be in the immediate area or leading the activities. The soldier must make his own decision on how to carry out the mission and accomplish the task.

The situation may be different from previous experiences and that is why quick situation assessment and decision making are important. Also, he must be able to apply his skills and knowledge in each situation.

A soldier's automatic instinctive action.

» *Keep an eye on your surroundings, identify the critical factors.*

Destroy the enemy threatening you or take cover.

Prevent a dangerous situation by warning or raising the alarm.

Support your partner and save him from a potentially dangerous situation.

Keep your section leader informed.

Carry on with the mission.

Maintain combat readiness and your ability to function.

The goal of immediate action is to destroy the enemy you meet before he destroys you. Another option is to take cover so that the enemy cannot destroy you.

Options usually are **opening fire quickly** or taking cover or the combination of the two. Opening fire quickly is an effective operating procedure when the soldier sees the enemy and is able to fire his own weapon.

In other cases the most effective action is taking cover for example by dropping to the ground and moving to a fighting position from where you can destroy the enemy. A bad decision made in a few seconds can lead to the death of a soldier. Immediate action requires continuous and alert observation on the threats against the section. These threats include the use of CBRN weapons, mines, tanks, the enemy entering firing sectors or a person approaching a sentry post.

In addition to observing the enemy the soldier must also **warn and alert his partner and section** verbally, with a hand signal or with an alarm. This requires previously practised operating procedures.

After quickly opening fire or taking cover the primary mission of the soldier is to **support his partner** and save him from a potentially dangerous situation. He must also **inform the rest of the section that he has seen the enemy.**

When the soldier knows to do these things, he adds to the entire section's security and the section's combat power. He also makes sure that he will also be supported and helped in a similar situation.

When a soldier is no longer under enemy fire he will notify the section leader of his observations and the results of his actions. In this way he supports the leadership and command of the section leader and makes his entire section's combat more effective. After immediate actions the soldier should **independently continue carrying out the section leader's order or mission.**

Immediate action according to section leader's orders

» *Start carrying out the order immediately.*

Act fast and as trained.

Continue carrying out the order until the mission is accomplished or the section leader gives you a new task or mission.

Notify the section leader when you have accomplished the task and report the results.

The activity of a large force does not begin until the last soldier is ready or in his own position. The platoon does not move out until the last soldier is in the vehicle or has taken his place in the movement formation. Quick and reliable actions by an individual advances the section's and platoon's actions and frees up the leaders to lead in combat. A soldier must have faith in the actions of his partner and the other members of the section. It requires practising and this practice, when successful, creates the necessary unit cohesion and creates trust among the section. Trust and unit cohesion are heightened in conditions where the section members cannot see or hear each other: for example while fighting in built-up areas or in dispersed guerrilla actions.

A soldier must continue carrying out the order until the mission is accomplished or the section leader gives him a new task or mission. After

carrying out the order the soldier must notify the section leader when the task has been accomplished and report the results. If it is obvious that carrying out the order is delayed or cannot be completed it must be reported to the leader immediately. In this way the soldier supports the leadership and command of the section leader and makes his entire section more effective.

As the situation changes the soldier may have to think about what the purpose of his mission was and act according to his best understanding of the situation in order to achieve the original purpose. Events that place the section's mission or its members in danger should be reported to the section leader as quickly as possible.

Carrying out an independent combat task

» *In an independent combat task the soldier must decide how and in which order he should act to fulfil the task in the best possible way.*

Independent combat tasks can include destroying enemies in the sector of fire, taking out a tank or clearing a room. Other independent combat tasks can be attacking an assigned objective, taking out a gun emplacement, covering the disengagement of the section or destroying a pursuing enemy.

Carrying out such independent tasks last from a few dozen minutes up to a few hours.

The basis for the action is the mission of the section or fireteam, the situation, orders and observations of the operating environment, especially the activities of the enemy, as well as personal experiences of combat.

Situation assessment and decision making

» *This is based on the orders of the section leader, observations of the operating environment and combat experience. The central factors affecting the realisation of the task are assessed. The decision taken is the best solution for carrying out the task: how and in what order?*

The chart on the next page shows a model for a soldier's quick situation assessment and decision-making. It can be also used when carrying out an independent combat task.

The model can also be used in mental training when preparing for combat. Mental training prepares you for the upcoming performance, ensures you complete the task in the right way and makes the actual performance of the task faster. Mental training includes situation assessment and going over the combat phases and own actions in your mind before performing the actions or before battle.

The same model can additionally be used after the battle to assess your own actions and how to improve them.

The basis for the decision making are the orders of the section leader, observations of the operating environment and previous training and combat experience.

Elements of situation assessment include:
1. Mission, 2. Enemy, 3. Operating environment,
4. Partners/fireteam and section and 5. Weapons and equipment.

Contributing factor	Think	Evaluate	Decide
1. Mission Assigned by section leader • the task • objective/goal • instructions • support • time-related factors • restrictions	• What is the task/ mission? • What needs to be accomplished? • What needs to be done immediately? • What has to be done next?	Possibilities and means for catching the enemy by surprise	
2. Enemy • location • number • weapons • activity • goal	• From which distance can the enemy see the soldier? • How and when can the enemy use weapons on the soldier? • How can the soldier use weapon effect on the enemy? • How might the enemy react? • What is the most dangerous enemy from the point of view of the action? • What is the order of destruction of the enemy?		
3. Operating environment • cover • obstacles • dead angles / areas without observation • routes of advance • fighting positions	• Factors limiting enemy and friendly actions? • Routes of advance and fighting positions that enable carrying out the task?	Factors that promote or hinder action. Factors that are essential to action. Possible threats and risks?	What needs to be done? How must we act? In what order do we do things?
4. Partners / fireteam and section • location • the task • current and planned actions • use of crew-served weapon	• How will the section and fireteam support the individual soldier? • How can the soldier support the section and the fireteam? • How is cooperation communi-cated with the fireteam?		
5. Weapons and equipment • no. of rounds in the magazine • no. of full magazines • no. of hand grenades • other weapons and ordnance • possibilities for use • restrictions	• Choosing the weapon, the type of ammunition, sight and firing mode. • Sufficiency of ammunition.		

Situation assessment is always started from the task or mission. The order of the section leader usually includes a standard task based on training and practise, the task of the individual soldier and the parts determined by the operating environment and situation and, if necessary, the operating instructions. The standard task of the section leader's order can, for example, be "you are the sentry/point man/machine gunner, overwatch security/guide/runner. The section leader will give the soldier a clear, unambiguous task. The task can, for example be, covering someone, direction of advance or objective, destroying the enemy, delivering a message, guiding someone. Relating to the operating environment, the order includes, for example, fighting position, sectors of fire and maximum engagement lines. The section leader often gives the task in the position or in such location that the position or post is visible. The section leader makes sure that the soldier understands the order by possibly asking him to repeat the task or by asking a question about the order. The order will end in the section leader's question "KYSYTTÄVÄÄ?" (questions?), at this time the soldier should check any issues that are unclear. After the order the section leader may issue necessary operating instructions for carrying out the task.

The section leader's common order includes the following information: enemy, friendly forces, section's mission, tasks of fireteams/individuals, support, command and operating instructions. Commanding includes commands and hand signals used, challenge, battle code, the location of the section leader and the time factors.

The first things to find out about the **enemy** are location, number and weaponry. Second, find out the enemy's actions and evaluate its goals/objectives. The conclusions are answers to the following questions: From which distance can the enemy see the soldier ? How and when can the enemy use weapons on the soldier and how can the soldier use weapons on the enemy? How might the enemy react? What is the most dangerous enemy from the point of view of the action? What is the most dangerous enemy from the soldier's perspective?

» *The soldier must always try to find the means and opportunities to surprise the enemy.*

In the **operating environment** you should chart out cover, obstacles, dead angles/areas without observation, routes of advance and fighting positions. The conclusions are answers to what restricts enemy and friendly actions and suitable advance routes and firing positions for friendly forces.

For the section, fireteam and partner you need to find out the location, task, current and planned actions and the use of crew-served weapons. The conclusions are answers to how the section, fireteam and two-man team will support the action, how the soldier can support the section and fireteam and how cooperation is communicated between team members?

In terms of weapon and equipment the soldier should check the number of rounds in the magazine, seen from the holes on the edge of the magazine, and the number of full magazines. One should also evaluate the opportunities and restrictions for using the weapon and other equipment. The conclusions answer the questions about choosing the weapon, the type of ammunition, sight and firing mode and sufficiency of ammunition.

As a result of the situation assessment you should know factors that promote or hinder action, possible threats and risks, factors that are essential to the action as well as courses of action.

Before the final decision it is good to think of how the enemy might react and how will that affect the actions of the fireteam. At the same time you are putting together a back-up plan that you can use when the situation changes.

Therefore, situation assessment is systematic evaluation of factors that affect how the task/mission is carried out. The team partners usually evaluate the situation together by talking. After assessing the situation the partners and the individual decide how to carry out the mission and what measures this requires.

It is possible to make such a situation assessment when you are carrying out an independent combat task. In a situation where you have to act according to the section leader's orders or react to a threat, you must act immediately and without hesitation, based on your military training and combat experience.

You will make a decision based on the situation assessment. The decision is the solution to how to best carry out the task and the actions that it requires. The actions are ranked in the order in which they are carried out into immediate actions, preparatory actions and carrying out the task and further actions.

The soldier must come up with a standard operating procedure to each situation quickly. That is why observing the operating environment, situation assessment and decision making must be continued, both when preparing for battle as well as during it.

Accomplishing the mission/task

» *Immediate actions*
– what do I do immediately?

Mission preparation and implementation
– how do I carry out the mission?

Further actions
– what do I do next?

When the actions start, the immediate ones to pass on are orders and signals, taking cover, advancing and using your weapon. A soldier can relay or give orders or hand signals to his partner or section leader.

The soldier can take cover or advance to the next firing position. The use of a weapon includes choosing the firing mode and targeted enemy and destroying the enemy. These actions must be done immediately or within seconds.

Preparing for mission execution and implementation can include such things as, observing the enemy visually and conducting reconnaissance as necessary for friendly actions. The preparation may also include pointing out a target to your partner, selecting the route of advance and next firing position, selecting and preparing the weapon, ammunition type or special equipment, selecting a target and firing mode as well as agreeing on a communication method and actions with your partner.

The fireteam can together agree on such things as, order of advance, destroying the enemy, moving out and hand signals. There is often only a short time to prepare for a mission or a task. The preparations should be done deliberately, systematically and quickly.

Certain factors **promote and make the accomplishment of the mission faster.** Such are confidence and skills in standard techniques and operating procedures, preparations and preparing for action, readiness required by the situation, cooperation with your partner, being goal-oriented, focusing on the essential factors, pre-emptive action to seize the initiative from the enemy, simple actions that lead to a guaranteed result, taking the initiative, courage and resilience.

Deceiving and surprising the enemy are often factors that decide the outcome of the battle. These can be achieved with pre-emptive actions, by not always doing things in a standard way and taking advantage of the enemy's patterns of activity.

Things that usually **slow down and hinder the completion of the mission:** not being proficient and confident in the standard techniques and procedures, being unprepared or neglecting preparation, not being combat



ready, insufficient cooperation with your partner, acting without clear goals or objectives, concentrating on the inessential details, reacting to the enemy's initiative, complicated operating procedures, indecisiveness and waiting, recklessness and giving up. A soldier can prepare for the threats and mitigate the risks by anticipating the enemy's counter-actions and by planning his own counter-actions.

Such **counter-actions** include taking cover and moving to a new fighting position, changing magazines and loading the weapon, observing, giving first aid to your partner, reporting observations of the enemy and the results of your own actions to your section leader. Effective action in all stages requires that the actions and procedures are done in the correct order.

Combat readiness

What does combat readiness require?

1. Correct situational awareness
The orders of the platoon and section leaders are what creates the basis of situation awareness. A soldier must always know his own task. In addition, he must also know the situation and the mission of the section. The situation includes information on the location of the enemy and the mission of the platoon.

In terms of your own task you must know, among other things, your sector of fire and maximum engagement line and direction of observation. A soldier must always know his unit's challenge and battle code. If you don't know the above mentioned, ask your section leader. A soldier must know where his partner is and what his combat readiness is. Also, he must know where his section leader, platoon medic and ammunition supply point are.

2. Weapon and equipment must be functioning and ready for use
A soldier must always have his weapon with him and it must be functional. It must be properly maintained and zeroed in. The sling must be adjusted to the correct length. All of the 6 magazines that are a part of the fighting load, must be loaded. The helmet must be worn, with the strap properly secured.

The webbing must include the battle dressing, CBRN kit and rations for 24 hrs. The canteen must always be filled with water. The webbing must be camouflaged. The marching load must be packed and kept in the bivouac location or in a vehicle. In the winter the skis must be waxed and the bindings fitted to the correct length.

3. Preparing for your own task and the mission
A soldier must have the special equipment required by the task. This equipment may include hand grenades, a light antitank weapon, flares, tracers and smoke grenades. Preparations for night time operations must be done during daylight hours. The fireteam must agree in advance on how to carry out the task and work together. A soldier must prepare for his task by assessing the situation and with mental training. Whenever possible, carrying out the task must be rehearsed in advance.

4. Maintaining your ability to function
Being combat ready requires that you actively monitor your environment, make observations

and recognise the critical factors. Being able to function means that you can start carrying out your task immediately when your section leader shows you an example, gives the signal or order, or when you detect the enemy.

It requires that you maintain your energy supply by eating something every 2-4 hours and keep hydrated by drinking liquid approximately 1 litre every hour, or 2-2.5 dl every 10-15 minutes when under heavy exertion. Make sure you dress according to the weather.

The section leader will determine how duties and rest are rotated. Try to rest when possible. The need for sleep varies from person to person. 90 % of people are able to work 9 days with 3-5 hours of sleep per night. As a result of complete sleeplessness everyone's capacity to function will collapse after the fourth day awake at the latest.

Preparing for combat and maintaining combat readiness

Situational awareness
The orders of the platoon and section leaders are what creates the basis of situation awareness and the orders always include at least the following:

- **Situation:** what is happening, estimate of enemy actions, direction/area, strength and known equipment
- **Task and objective:** the mission of your platoon and section
- **Commander's intent:** The commander's plan about how the mission is carried out
- **Support:** for example medical support and ammunition resupply, catering and supporting units, such as indirect fire and engineers
- **Command and control:** Who commands, from where and with what
- **Codes and challenges:** challenge (countersign) and battle code.

After giving the orders the section leader repeats the central parts of the order by asking the section members to repeat them back to him. In the end the section leader will state: "KYSYTTÄVÄÄ?" ("Questions?"). The subordinate must ask about anything that is unclear. Every soldier must know his task and its importance to his unit's combat success. This way the soldier can operate independently even if the situation seems unclear at times. The soldier must also know the current countersign and battle code. Observations of enemy activity or signs of it must always be reported to your leaders and fellow soldiers.

Order template
A standardised order of presentation makes giving and understanding orders easier. It is called an order template The order template used in Finland is as follows:

1. Overall situation
   – what is happening
2. Enemy forces
   – precise information on the enemy
3. Actions of the higher echelon and neighbouring units
   – what other friendly units are doing, end state
4. Mission
   – task completed by your unit, end state
5. TASK TO THE ORDER RECIPIENT
   – what must you do
6. Intelligence
   – how is it carried out, how will the information be delivered
7. Fires
   – anti-tank measures
   – indirect fire
   – ground based air defence
   – engineers and CBRN
8. Use of vehicles
   – where are they located, how will they participate during combat
9. Logistics
   – supplies
   – maintenance
   – medical
   – transportation
   – services

10. Encryption
- communications security
- camouflage and covering tracks
- lights and fires

11. Leadership
- signals
- location of leaders
- battle code and challenge
- watch synchronisation
- questions

» *Usually orders are short and they only include what is necessary in each situation. An order can also be given in several parts. A preparation task is given to raise the operational readiness. A warning order makes the preparation faster and the actual order starts the execution of the mission.*

How to prepare for combat?

1. Maintain situational awareness. Pass on your observations to your partner and section leader

From the section leader's order you should memorize the overall situation, enemy information, mission of the section, your own task, the challenge (countersign) and battle code. Always keep track of where your team-mates are and your actions. Monitor your operating environment.

2. Keep your weapon and kit combat ready and functioning.

Clean your weapon and occasionally check the sight adjustments and functioning of your magazines. Always reload short magazines during a break in the battle. Keep your marching load packed in the sleeping area or in a vehicle.

3. Prepare to carry out your task or mission.

Keep the special equipment, such as hand grenades, a light antitank weapon, flares, tracers and smoke grenades, ready for use. Prepare for night combat. Go over the section leader's orders and instructions and after that agree with your team-mates how you carry out the task and work together. Prepare for carrying out your task by assessing the situation. Think about your and your partner's role in the section's combat. Think how you will act when your section observes the enemy or makes contact. Anticipate how the enemy might react.

4. Maintain combat readiness and your ability to function

Monitor your surroundings and recognise critical factors to begin action. Maintain proper hydration and energy levels by drinking water and eating.

How to raise combat readiness

1. Update your information. Pass on your observations to your partner and section leader

The section leader will determine the section's combat readiness and raising it. The section leader might give orders about sentry duty in 2-man teams, resting with fighting load worn, manning fighting positions and air attack and CBRN warning. Anticipate the enemy's actions and prepare for them. Let your team-mates and section leader know of any critical factors you notice in your operating environment. Pass on your section leader's orders and reports to your partner and relay them forward.

2. Raise your readiness to use your weapon and equipment

Make sure you have the necessary equipment. Assume a good firing stance. Choose a target, weapon to be used and the correct sight. Aim at the likely target and disengage the safety. Do the preparations required by the CBRN warning when your section leader gives the order.

3. Prepare to carry out your task and for enemy action.

Prepare to use the special equipment, such as hand grenades, a light antitank weapon, flares, tracers and smoke grenades according to the situation, enemy activity and your task. Based

on observations agree with your partner and team-mates how you carry out the task and cooperate. Be prepared to start fighting. Think what the enemy might do next and follow its activity.

How to prepare for night combat?

Preparations for night time operations are done during daylight hours:

- inspect the silence and camouflage of the fighting load with your partner,
- flip on the night sights of the assault rifle and paint or attach a white direction strip on the rifle,
- load the magazines with tracer rounds,
- attach white marks and/or leader lights on the back of the webbing,
- make and check weapon limiting stakes and mark the limits of the sectors of fire and the firing height in the terrain ahead
- rehearse the battle plan under the leadership of your section leader.

Camouflage and inspect bare skin. No shiny equipment can be visible. Make sure your equipment and kit do not make any noise. Your weapon, entrenching tool and your mess kit and spork can easily make extra noise. The reflectors on the boots can be covered by folding your trouser legs over the boots.

A soldier must pay special attention to **maintaining his night vision.** Avoid looking into bright lights. If you need to light up something, use red light. Enough rest and correct food, especially vitamin A and sugar, prevent the deterioration of your night vision.

Avoid using alcohol and tobacco.

The night sights are zeroed in when zeroing in the weapon. Night sights and tracer rounds are used in dark lighting conditions. A white directional strip parallel to the barrel makes sighting the weapon easier.

Weapons equipped with night vision are used for surveillance and command and control of combat and for opening fire so that it surprises the enemy.

A white cloth can be put on the back when advancing so that visual contact is maintained. Soldiers can also be marked with cloth patches so that a rank-and-file soldier has one, section leader has two and the platoon leader has three patches. The leaders may also have a dim, rear facing light. You should memorise the terrain features already during the daylight hours. Fireteams prepare limiting stakes in the fighting position and weapon support holes based on the named terrain.

Darkness does not offer concealment. A soldier must protect himself, his fighting position and actions against thermal observation. Such natural materials as branches or cellular plastic (sleeping mat) combined with natural materials can be used for this purpose.

Ensuring the combat efficiency of the soldier in combat conditions

In combat conditions, a soldier will be under considerable physical stress, mental stress and he or she will suffer from lack of rest, especially lack of sleep. Weather conditions are also unlikely to be favourable and soldiers will be undernourished and dehydrated. By following these instructions, you can maintain your capacity to fight.

How do you prevent casualties within your own units in combat?

Follow general safety regulations. Memorise **your unit's challenge, battle code and signs for approaching.** Keep track of where your partner is at all times and agree on how you work together in combat.

Say your unit's challenge out loud to let others know your location or when approaching the sentry, for e.g. from behind. Obey the sentry's orders.

Learn to **identify the enemy** by his uniform, combat gear and weapons as well as from his shoe print, vehicle tracks and sounds.

Always notify the sentry when moving into your section's killing zone. Approach the sentry point and collection point from the ordered direction and make the sign that has been agreed on.

Make sure you know where your section has laid its **charges** and their firing wires so that you do not set them off accidentally. Remove a hand grenade's **safety pin** only just before you are about to throw the grenade. Remove the safety pin from a charge only when you have done everything else that is required to install the charge. Handle your weapon and other gear so that you do not accidentally detonate the mine that you have just installed.

Always check the **danger zone behind you** before you fire a light anti-tank weapon.

Leave a minimum of **100 angular mils** both to your sides and upwards, between friendly forces and the target you are aiming at. **A hundred angular mils is the same as the width of three fingers.** The platoon commander will order changes to peacetime weapon handling instructions before combat. Relay the section leader's commands to the other soldiers.

How do you build up stress resistance and manage stress?

Develop your fighting skills. This will improve your ability to handle stress. The section leader will maintain the section's combat ability by training and rehearsing the section's battle plan.

Develop your physical fitness. This will also improve your ability to handle stress. Take care to recuperate properly after strenuous physical exercise.

Make sure you know what is going on. Do not spread rumours. Contribute to the section's team spirit and motivation positively. Talk about stress symptoms with your partner and section leader.

Make sure you drink enough fluids, eat and rest. A soldier can remain in fighting condition a few hours without fluids, a day without food and around 70 hours without sleep. Rest even for a short amount of time whenever possible. When action continues for a long time you need to get at least 4-6 hours of sleep in 24 hours. It is important for the entire unit that leaders, drivers and those doing work that requires precision get enough sleep.

Prepare for combat through mental training. Mental training includes situation assessment and going over the combat phases and your own actions in your mind before performing the actions or before battle. The section leader will give orders regarding the scenario for mental rehearsals. Base your rehearsals on the battle plan you have rehearsed in your section and on what you have agreed on with your partner.

Make sure you recuperate after strenuous exercise or combat. Drink fluids, this helps your body recuperate. Stretch and relax afterwards, as you will have better use of your muscles later on. Go over your combat experience with your partner. Eat and rest.

How do I maintain my body temperature?

Cold as well as warm conditions can cause your body temperature to fluctuate.

Cold temperatures can cause the following

- frostbite
- hypothermia

	Air temperature												
Wind	**10 °C**	**5 °C**	**0 °C**	**−5 °C**	**−10 °C**	**−15 °C**	**−20 °C**	**−25 °C**	**−30 °C**	**−35 °C**	**−40 °C**	**−45 °C**	**−50 °C**
Calm weather	10	5	0	−5	−10	−15	−20	−25	−30	−35	−40	−45	−50
2 m/s	9	4	−1	−6	−11	−16	−21	−26	−31	−37	−42	−47	−52
4 m/s	5	−1	−7	−13	−18	−24	−30	−37	−43	−49	−55	−61	−67
6 m/s	3	−4	−10	−17	−24	−30	−37	−43	−50	−56	−63	−69	−76
8 m/s	1	−6	−13	−20	−27	−34	−41	−48	−55	−62	−69	−76	−83
10 m/s	0	−8	−15	−22	−30	−37	−44	−52	−59	−66	−73	−81	−88
12 m/s	−2	−9	−17	−24	−32	−39	−47	−54	−62	−69	−77	−84	−92
14 m/s	−2	−10	−18	−26	−33	−41	−49	−56	−64	−72	−79	−87	−95
16 m/s	−3	−11	−19	−27	−34	−42	−50	−58	−65	−73	−81	−89	−97
18 m/s	−3	−11	−19	−27	−35	−43	−51	−59	−67	−75	−83	−90	−98
20 m/s	−4	−12	−20	−28	−36	−44	−52	−60	−68	−76	−84	−91	−99
		A		**B**	**C Tissues freeze**			Death by freezing					
	D												

A = Cold **B** = Freezing cold **C** = Risk of frostbite on bare skin
D = Risk of freezing is low when adequately dressed

Frostbites appear as white spots on your skin and they tingle painfully. Frostbites occur when your skin and the underlying layers freeze; the cold is destroying the tissue.

In worst case, the whole area suffering from frost bite has had to be removed through surgery.

Hypothermia means your whole body's temperature is too low. When your core body temperature goes below +30 degrees, you lose consciousness and, when it goes below +28, you go into cardiac arrest and die. Hypothermia will cause your muscles to cramp and shiver, you will feel lethargic, apathetic and very disorientated.

Frostbite and hypothermia can occur even when temperatures are only a little below freezing because maintaining a steady body temperature also depends on your clothing in relation to the temperature and the wind chill factor. Cold water will cause your body to stiffen very quickly.

How do you prevent frostbite?

1. Dress warmly and appropriately for each situation. Multiple thin layers of clothes is better than one thick set of clothes. Protect yourself from the wind.
2. Use roomy footwear. Your boots should be at least two sizes too big. Use insoles in your boots.
3. Wear clean socks. Do not wear nylon socks.
4. Keep your feet clean. Manage your foot sweat, as sweat increases the chance of frostbite.
5. For immediate relief, you can increase warmth using things other than clothing, such as newspaper.
6. Avoid getting sweaty, but keep moving. Take off clothing layers before hard physical strain. Add clothing after strain and during breaks. Change into dry clothes the first chance you get. Use every opportunity to dry your equipment.
7. Maintain proper blood flow to the face by moving your facial muscles. Wiggle your toes and move your feet inside your shoes. Keep rolling your fingers into a fist and opening them again.
8. Avoid using soap and deodorant as well as water-based creams when temperatures are clearly below freezing.
9. Agree with your partner or your section on how you will monitor each other for signs of frostbite on the face. Look out for frostbite in other soldiers within your section too.
10. Eat and drink warm food and drink. Keep the drink and food that you are carrying close to your body.
11. Don't smoke; nicotine constricts blood vessels and thus considerably adds your risk of getting frostbite.
12. If you need to touch a metal surface with your bare hands, wipe the surface dry before you touch it. Dry your hands.
13. Numbness is a sign that your blood is not circulating as it should. Remove your gear and move your muscles rigorously.

14. A white area on your skin is a sign of frost damage. Place your warm bare hand on it to warm it up. Do not rub it. Never rub the area with snow. This can cause necrosis or an infection. Remember that a feeling of numbness even in a limited area or stiffness in the toes and fingers can be the first signs of frostbite and may require immediate professional help to prevent it from getting worse.

» *One more time!*
Especially look after your feet:
– keep them dry
– try to change your socks every day
– remove your shoes during breaks and dry your socks
– dress warmly, as dressing warmly overall reduces the risk of extremities getting frostbite.

If you even just suspect that you have frostbite, e.g. on your feet, let your closest superior know immediately.

When in a hot environment

The following health conditions are caused by heat:

- sunstroke
- heat syncope (fainting)
- heat cramps
- heat exhaustion
- heatstroke

Sunstroke is caused by too much direct heat to the head. Symptoms include head ache, dizziness and nausea. The first thing to do is to rest in a cool place.

Heat fainting is caused by increased surface blood circulation meaning blood flow to the brain is temporarily weaker. This leads to loss of consciousness. When someone has fainted, lift their feet up, take them to a cool place and give them something to drink.

Heat cramps are muscle cramps that last 1–3 minutes and are related to muscle strain in a hot environment. As first aid, drink a litre of water or juice with a ¼ teaspoon of salt.

Heat exhaustion is mainly caused by severe dehydration. You will feel weak, tired, out of breath and disorientated. You will develop a fever. When someone is suffering from heat exhaustion, have them drink desalinated water, rest in a cool place, remove their extra clothing and provide them with medical care.

Heat stroke is when your entire body's temperature is dangerously high. Signs include an increased pulse, fever, seizures, abnormal behaviour and uncontrolled urinating or defecating.

» *Your body will overheat if you have too much clothes on, are dehydrated and have taken part in hard physical exercise.*

Sunstroke is caused by not covering your head properly. Even when you have drunk just 23% too little, your overall ability to function will drop significantly. This corresponds to loosing around two litres of fluids from your body and this can be caused by as little as one hour's strenuous exercise. A feeling of thirst is no guarantee, as a person will usually still drink too little while working hard.

» *When you are under hard physical strain in a hot environment, you should drink around 2 dl every twenty minutes.*

How do you prevent your body from overheating?

1. Before you have to engage in an activity that will be physically demanding and take several hours, drink a glass of water half an hour before the exercise starts and then another glass 15 minutes before the exercise starts.

2. Don't wear clothes that are too dense in texture or too constricting. They must be made of breathable fabric. When the weather is hot, dress lightly enough.
3. Drink 1–2 dl of either cool or cold fluid every 10–20 minutes.
4. When there is a halt or break, go into the shade. Take enough breaks in the shade and drink often.
5. Also remember to drink a lot after the strenuous part is over; drink often and small amounts at a time. This helps your body recover quicker and it will help you get through the next physically demanding activity.
6. Wash or swim often enough and thoroughly so that your sweat glands do not get clogged.

How you should prepare for long term physically strenuous activity and maintain your physical capacity during that time?

1. Increasing your physical fitness in advance

Exercise regularly 3–5 times a week for at least 30 minutes / time.

2. Fill up on fluids and food

Build up your energy levels by eating and drinking more 1–2 days before the activity.

3. Personal hygiene and washing

Wear clean socks and clothes that prevent chafing. Change into clean underwear as often as possible. Avoid washing your face with warm water and soap before you go into freezing cold temperatures.

4. Choosing clothes and shoes according to the environment and weather conditions

The best way to keep your body temperature stable is by adding or taking off clothes as well as by making sure that you are properly hydrated. Remove excess clothing before strenuous exercise and put it back on when you have finished the activity. The best way to dress is to use several layers of clothing and combine different types of fabric. Use shoes that are best suited for the activity you are engaged in.

5. Packing and distributing your gear and materiel in an optimal way

Pack your rucksack so that the centre of gravity is as high as possible. Take turns in carrying heavy crew-served weapons. Soldiers that weigh under 60 kg or are in poor condition are capable of strenuous, long-lasting activity for only a limited amount of time when carrying a heavy load.

6. Regulating and timing carrying loads and physical exertion

One good way is to do the physically demanding activity for 50 minutes and then having 10-minute breaks in between. Maintain a steady pace and load.

7. Keeping your body hydrated and at the right temperature

Drink enough fluids. When engaged in a physically strenuous activity, drink about 1 litre an hour (water, diluted juice). Drink often and small amounts at a time. This allows your body to better absorb the fluid.

8. Make sure you get enough energy by eating nutritious food regularly

Carbohydrates are a soldier's most important source of energy. Eat several (4-6) small portions throughout the day. Avoid sugars, eat crisp bread. Vigorous physical activity in freezing temperatures can double your calorie need.

9. Preventing the negative effects of mental stress

Keep moving. Try and relax and visualise less stressful alternatives. Contribute to the team spirit in a positive way. Prepare and exercise for difficult situations. When the exercise has started, you will need at least 4–6 hours of sleep every 24 hours. Studies show humans are capable of working effectively on average for 9 days in a row when they are allowed to sleep 3–5 hours per 24 hours. Performance improves when people are allowed to take naps of 20–80 minutes during the day.

Hygiene in field conditions

Always brush your teeth after a meal. If this isn't possible, chew xylitol gum or pastils. Use the field lavatory when you need to go – don't go "behind a bush". If this isn't possible, cover your bodily waste. Always wash and/or disinfect your hands afterwards.

Wash or swim after hard physical work and sweating. Dry your wet clothes and change any wet clothes that you are wearing for dry ones. Exchange dirty and broken gear whenever possible.

Only use water that you know is clean. Pour water from a container into your water bottle. Do not put your water bottle into the container. If you need to use surface water, use running water and then boil the water, use water purification tablets or a filter to clean it for safe consumption. Keep your water container and water bottle clean by washing them.

During transport, keep food and food containers separate from ammunition, fuel and waste. Keep food containers away from rain and direct sunlight. Use a ladle to distribute and take food. Do not use your own spork. Always close the lids of food containers after distributing and taking food.

Always wash your hands before you prepare food and after a meal. Never eat food that has been kept warm for more than two hours. Don't eat food if you suspect that it has gone bad! When heating up food, heat it to the boiling point. When making food yourself, cook or boil it so that it is well done.

Always wash your mess kit and spork after a meal with hot water and dish washing liquid. If there is no hot water, heat up some water in your mess kit on the stove. If there is no dish washing liquid, use spruce or pine tree needles instead. Empty waste and food scraps into the waste bin, never in the terrain. Rubbish is put into the waste bag and rubbish that can be burnt can be thrown into the stove.

Cooperation within a fireteam

The purpose and basics of cooperation
A section is made up of a section leader and three two-man teams or fireteams. The company level unit will make the speciality training selections: this will have an effect on what duties and what section a soldier is trained for. The goal is to form a section of persons who are capable of working together as well as possible.

You can have a say as to who your team member is and what fireteam you are placed in. The final placement is done so that the unit created is the best possible one. A fireteam of 2 soldiers or the fireteam of 3 is the basic unit of a section. **A two-man team or a fireteam is more effective than 2–3 individual soldiers.**

In combat, the fireteam makes it possible to combine the necessary **fire and movement and to protect and cover each other.**

The fireteams support each other by assault rifle fire and advance from one fighting position to another by covering each other's movement. In continuous combat the partners take turns in observing, filling magazines, fetching or preparing food as well as in eating and rest. The partners will give immediate aid to one another when one is wounded.

Successful cooperation between the partners requires that they know each other. The more senior soldier will introduce and train his partner in the tasks, activities and operating environment and introduces him to the rest of the section. The fireteam should rehearse cooperation and they should have shared combat experience. This way they will learn each other's strengths and weaknesses.

They will check each other's fighting load setup and camouflage. During long periods of stress and when tired the partners must observe and monitor each other's eating, hydration and gear packing. In the winter the partners will monitor each other's movement and face for signs and symptoms of frostbite.

They must know each other's location and combat readiness and ability to function. They must be proficient in the fast, short and clear communication in combat, both with hand signals and verbally.

A fireteam always fights as a part of their section. That is why the team must always look for the section leader's hand signals and orders and relay them to other teams. The section leader will give the teams tasks so that the teams support one another with their fire and movement. The team must understand their position and location as part of the entire section's actions.

When the section advances in a combat formation, the job of the team is to advance and maintain their position in the formation and to watch the assigned direction.

In defence the team's task is to destroy the enemy in the sector of fire, from a fighting position assigned by the section leader. In attack the team's task is to advance in the assigned direction or to the objective and to destroy the enemy it encounters. The fireteam acts together as point men, LAW gunners, a machine gun team and on 2-man sentry duty and in almost all other combat duties.

The team's cooperation in preparing for combat and in combat will be explained in more detail later.

Something to think about

1. What do you do if your team-mate cannot function in combat?
2. What do you do if your team-mate is wounded in your 2-man fighting position?
3. What do you do if the operator of your crew-served weapon (MG, LAW) cannot continue fighting?

Why is information passed on in combat?

The requirement of a section's effective communication is that the members of the section understand the need for interaction and their duty to pass on all observations, signals and orders.



Fireteam's interaction in combat

Good interaction within a fireteam is only possible by passing on information. If the communication is lacking, the necessary information is not passed on and the battle can be a failure.

What is passing on information in combat and what does it require?

Interaction is discussion, short reports and orders and communication with the confirmed and agreed arm and hand signals.

Passing on information requires common concepts, knowing confirmed arm and hand and light signals as well as signals and operation procedures that have been agreed on beforehand. Communication and cooperation must be rehearsed.

When do you pass on information?

When preparing for combat the point of the interaction within the fireteam is assessing the situation and agreeing on cooperation to accomplish the task. In combat the point of the interaction is passing on observations and interpretation about the enemy, operating environment and friendly forces to your section members and section leader. Its purpose is to also support carrying out the section's battle plan and to maintain communication with the rest of the section members.

Pass on your observation of the enemy to your team members and warn them of enemy activity and point out targets to them. Before carrying out the task the fireteam can together agree on such things as individuals' responsibilities, selecting targets and the order in which they engage targets. During the tasks let your team know of your intentions, agree on who is supporting and who is advancing and encourage your team members. Pass along the section leader's signals and orders to others.

After the battle is over the goal of the interaction is twofold: exchanging and evaluating combat experiences to improve actions and supporting your team members.

How to communicate?

Communication includes attracting the attention of your team members, sending the message and making sure the message is received and understood.

A soldier should attract his team members' attention with the HUOMIO-hand signal and if necessary with a whistle or the team member's name. The signals should be shown clearly. Delivery of the message should be ensured by checking if the recipient repeats the signal or acts according to the message. A soldier will show he has understood the message by repeating the signal or the verbal message.

You will ensure the delivery of the message by using confirmed hand, arm and light signals, previously agreed signals and operating procedures. Use standard Finnish. Speak in a clear and loud way. Keep the message short.

What does the message include?

The basic format of the message is as follows (KMMMTTT):

- **KUKA** (WHO) (number and type of friendly and enemy forces),
- **MITÄ** (WHAT) (action),
- **MISSÄ** (WHERE) (direction and distance),
- **MILLOIN** (WHEN) (time),
- **TOIMENPITEET** (ACTIONS),
- **TULOKSET** (RESULTS) and
- **TOIMINTAOHJEET** (FURTHER INSTRUCTIONS) (Ask for instructions if necessary - your section leader will give further instructions)

WHO and WHAT?

Information given regarding the enemy includes **numbers, type, location and action**, e.g. as follows:

- Two soldiers advancing towards sentry post or
- Machinegun (MG) team, in position
- Infantry section at target SUSI I, advancing to maximum engagement line
- Infantry fighting vehicle, stopped in the nuisance minefields, he is laying down smoke and reversing.
- Vehicle commander, in vehicle's front hatch.

WHERE?

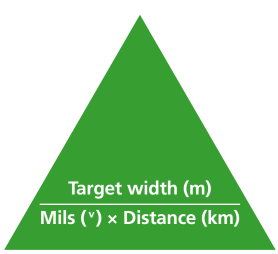
The enemy's direction and distance or location

You should point out the enemy to your team members using direction and distance. In a sudden situation the enemy is pointed out with your own example, by firing upon the enemy.

When advancing the enemy can be pointed out in relation to the direction of advance, for example enemy on the left/right/in front behind, 40 metres or using the clock method, for example enemy at 3 / 6 / 9 / 12 o'clock 100 metres.

In the fighting positions, the enemy can be pointed out as direction (left/right/in front, 50 metres), using the clock method (2 o'clock, 100 metres), or named terrain features (FOREST, ROAD, CLEARING, 150 metres).

The enemy location can be pointed out using a reference point for example enemy on the right side of the rock. More precisely the target can be pointed out using mils in relation to the reference point, for example enemy 100 mils left of the large tree.



The mil triangle can be used to determine distances and angles. the desired quantity is covered and the remaining ones will tell you what calculating method to use. Distances (km) are always given to the accuracy of one decimal point.

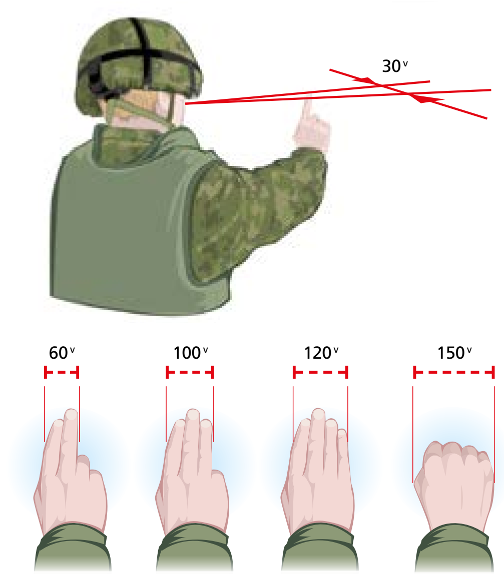
WHEN?

Time of event

Report the time using the 24 hrs clock, for example 10:15 or 21:10.

The events that have happened can be reported for example as approximately 5 minutes ago.

Fingers' mil measurements with an outstretched hand



Future actions will be agreed to happen at or starting at a certain time or instruction, for example: At 10:15 when the section leader fires a green flare and the machine gun (MG) starts firing.

ACTIONS

Warning of a danger threatening team members
You can warn your team members of an impending danger by saying VARO VIHOLLINEN EDESSÄ, VARO KÄSIKRANAATTI and SEIS! (LOOK OUT ENEMY AHEAD, LOOK OUT GRENADE and STOP!) MIINA, SEIS! (MINE, STOP!) LAUKAISULANKA (TRIPWIRE) and of immediate danger by saying SUOJAAN! (TAKE COVER!)

Report of own actions and agreeing on cooperation
You can report your future actions to your team by for example saying:

- obstacle in front, I'll go around from the right, cover me
- I'll rush into the ditch, cover me
- left turn ahead, throw the hand grenade and I'll clear it
- start firing from the left side, I'll start from the right, open fire on my example
- I'll use smoke to hide us, we'll flank from the right
- cover the hallway to the right, I'll go left
- I'll open the door, you throw in the hand grenade and shoot to the left
- no enemy, we'll continue to the next room

RESULTS

Report the results of your actions
Report the results of your actions to your team members and section leader by for example saying:

- no enemy in the field
- enemy destroyed, two killed, enemy position destroyed
- we are at the objective, three magazines and 2 hand grenades left

INSTRUCTIONS

Giving instructions to your team members and requesting necessary information from your section leader
The team members must ask each other for the necessary information about the enemy location, direction of travel, objective, signals and orders of the section leader, the number of special equipment and the fighting ability of the team members.

Tasks

Prepare the following reports by applying the instructions you just read.

1. Sentry's report to section leader about seeing the enemy.
2. Point man's report to section leader about enemy ahead.
3. A fireteam agreeing on cooperation before opening fire.
4. Revise the arm and hand signals used in cooperation and communication between team members.

5.4 Infantry section

Organisation and weaponry

The basis of a section's effective and fast action is **clearly determined tasks and roles for each member of the section.** Standardised tasks for soldiers make combat preparations, combat and maintenance procedures faster.

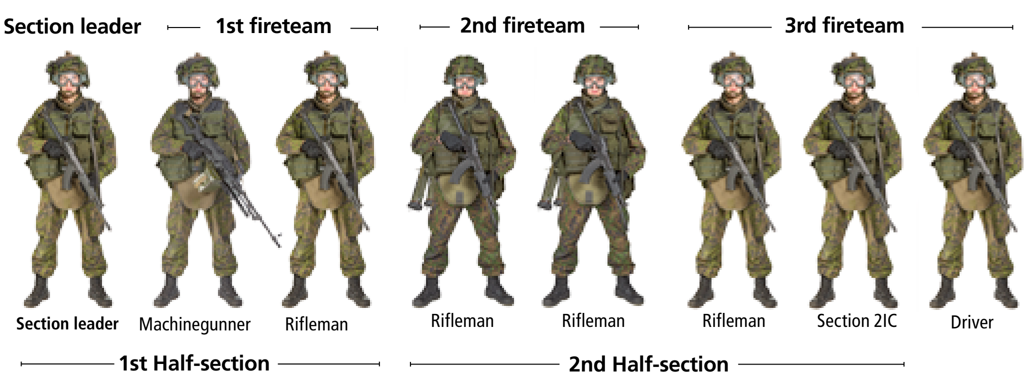
The section leader will command the section in combat and assigns tasks to the fireteams. The section leader is responsible for carrying out the mission, the combat readiness of the section and its training. He leads the first fireteam or squad when the section operates in fireteams.

The first fireteam (machine gun team) supports the combat of the entire section. The assistant machine gunner is the machine gunner's partner. The second fireteam (antitank team) destroys the enemy tanks in cooperation with and supported by the rest of the section. The assistant antitank gunner is the antitank gunner's partner. Third team (section second-in-command's (2IC) team).

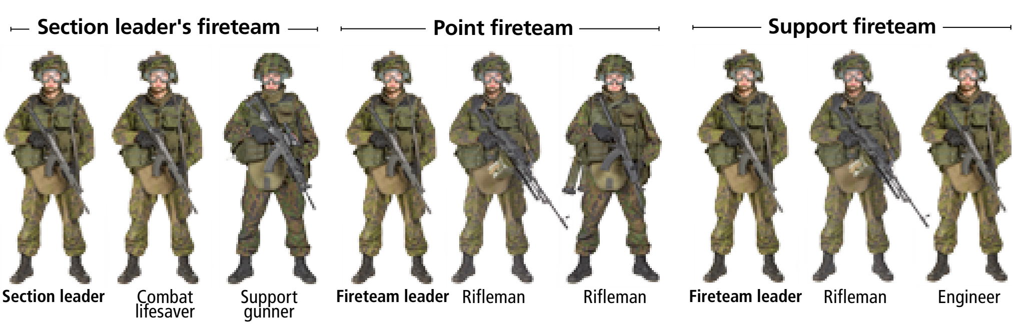
The section's second-in-command (2IC) is the first deputy of the section leader. The 2IC is responsible for the section's materiel and maintaining it. He arranges the sections ammunition resupply and the pick-up and distribution of food.

He leads the second fireteam when the section operates in fireteams. The deputy of the 2IC is his partner.

Example 1 - section organisation



Example 2 - section organisation



The driver of the infantry fighting vehicle or vehicle is responsible for the vehicle and its condition. The driver is a member of the third fireteam.

Other infantry sections will support the combat of your section. The combat of the platoon is supported with the following weapons, which have the mentioned firing distances:

- sniper rifles 600 m
- heavy machine guns 1,500 m
- portable one-shot 112 mm anti-tank weapons 350 m
- light and heavy directed fragmentation mines 50 and 150 m
- light mortar 5 km and heavy mortar 6.8 km
- artillery 14-26 km
- counter mobility (nuisance minefields, mine fields, mine barriers, mine rows, abatis, explosives and fake minefields)

The section can also be divided into fireteams and the section makes three fireteams. One fireteam can be equipped with an assault rifle with additional optics and the two others will have machine guns. The section leader and 2IC will also act as fireteam leaders. The leader of the third fireteam will be named by the section leader. The section leader can change the organisation of the fireteams if the situation calls for it,

A soldier as a member of his section based on wartime experiences

In 1998, Finnish Reserve Officers' Federation did a research project on leading people in war. The target group of the questionnaire were the Finnish World War 2 era veterans. Based on their war experiences a good section had certain qualities in combat. The same qualities can be used to describe a good section also today.

Completing the mission, "getting the job done" is the objective of the entire section and it gives satisfaction to everyone. The cohesion of the section gives the section strength and a sense of security and helps maintain a close section. The section members want to be a part of their section. The section is proud of their unit and being a part of it.

Unit cohesion makes the section's behaviour more predictable. The section members know each other, each other's capabilities and strengths and weaknesses. "Leave no-one behind" is an important principle that unites the section and keeps it together. Help your friend so that you get help when you need it. Place the good of the section in front of your personal comfort or other benefit. Being a part of a section increases the members' security and safety. The section members do not endanger each other's safety with recklessness or stupid actions. They encourage, help and support each other.

The section expects its members to do their jobs to the best of their ability, so that the jobs do not "end up in someone else's lap". A soldier is required to conquer himself and his fears.

The section expects its members to act identically in such things as security, performance level and cooperation. Issues that relate to the security of the section are soldier's actions in combat, sentry duty, using and maintaining crew-served weapons and looking after the wounded. A soldier is expected to have a similar level of performance in both combat and trying your best. It is expected that a soldier takes part in common jobs and things that affect everyone's comfort, such as cleaning, heating and food distribution.

Based on war experiences the qualities of a good soldier are courage, fearlessness, calmness, professional skills and dependability. Correspondingly the qualities of a bad soldier are cowardice and recklessness.

Movement formations and observation directions

Fireteam and section movement formations

Various different formations are used when moving. They make it possible for the entire unit to begin fighting quickly. In the formations the distance between soldiers is 3-10 metres and in open terrain as much as 20 metres. Increasing distance adds more protection when coming under fire. When determining distances between soldiers, maintaining visual contact and relaying arm signals in the dark must also be remembered. A specific formation is taken on a command or a hand signal.

The purpose of different formations is to make movement easier, increase combat readiness and cover for the unit and to enable far-reaching and effective use of fire. When moving the distance between soldiers is 5 metres at a minimum. This way the enemy cannot take out multiple persons at once. Spreading out makes it possible to see the terrain from multiple directions and to cover a larger area with fire, than by staying close together. However, distances cannot be so long that visual or hearing distance is lost with the soldier next to you. Basic movement formations for a section are the section file and the section line. A specific formation is taken upon a command or a hand signal.

When getting into a movement formation:

- repeat the signal
- load and make safe your weapon (if you have not already done so)
- check the sight settings
- carry the weapon slung across your chest or have it in your hands according to the section commander's example
- take cover if you have to wait to move out
- If necessary, the section leader will order scouts to the front
- observing is done according to the standard procedure or the section leader will give a separate order on it
- prepare to relay signals and orders.

During movement

- Have your weapon combat ready.
- Maintain distances.
- Remember the observation direction.
- Anticipate and recognise dangers.
- Relay the arm signals to others.
- Take cover when stopping or when others do.

Section formations

A section file is the fastest way to move on foot. It is used when moving as a part of the platoon, except if on point. The point section must use scouts.

Observation directions: Forward, Left, Right, Above, Rear

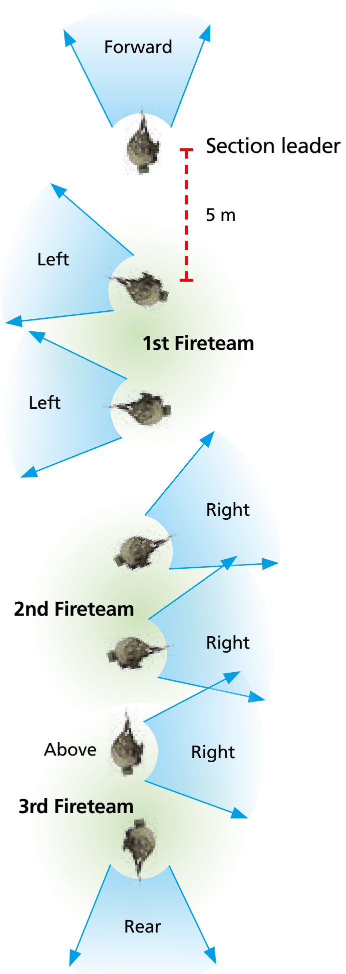
A section line enables high combat readiness. It is good for situations where the section has a clear avenue of advance and does not have to change away from it during movement.

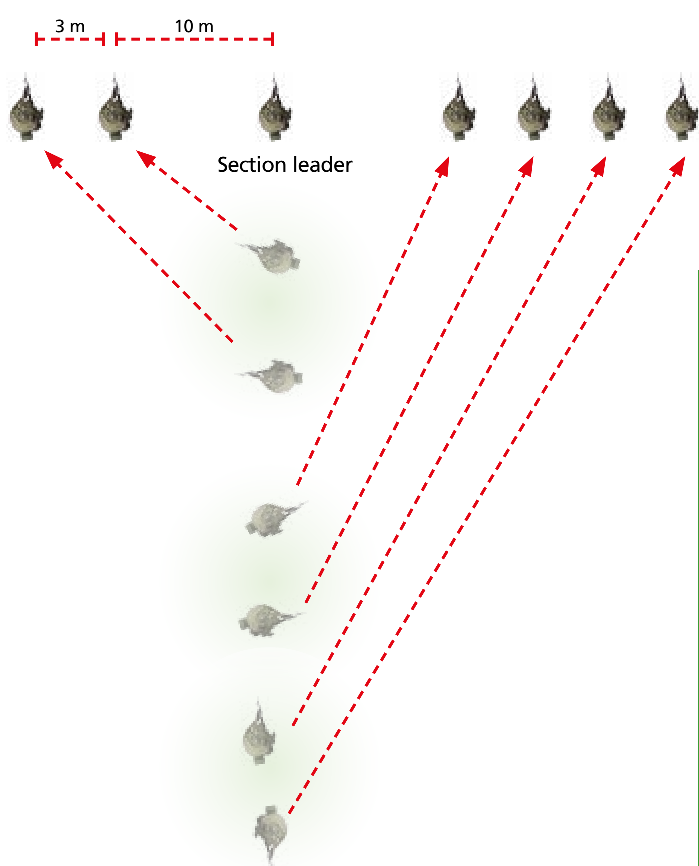


Arm signal: single file



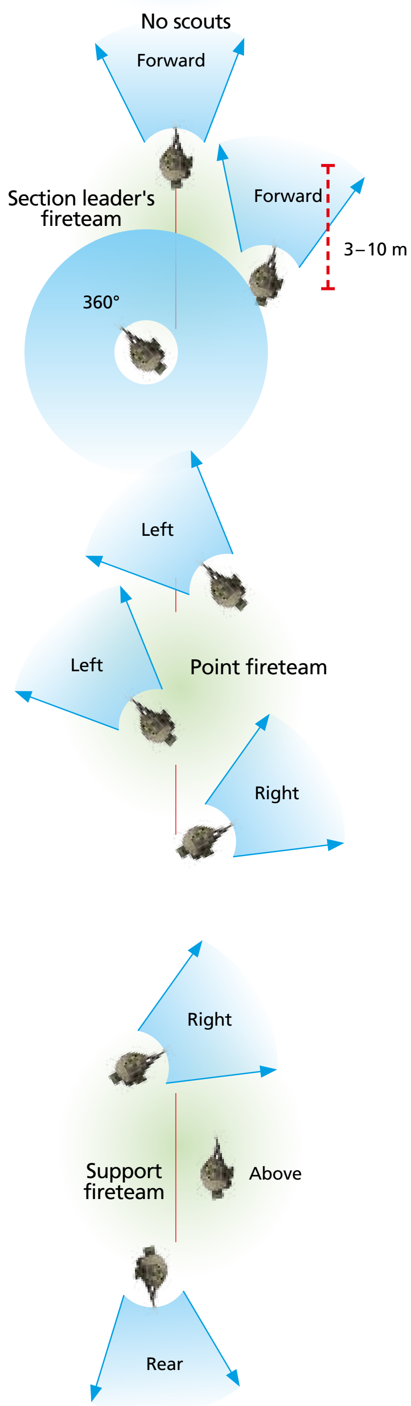
Arm signal: section line





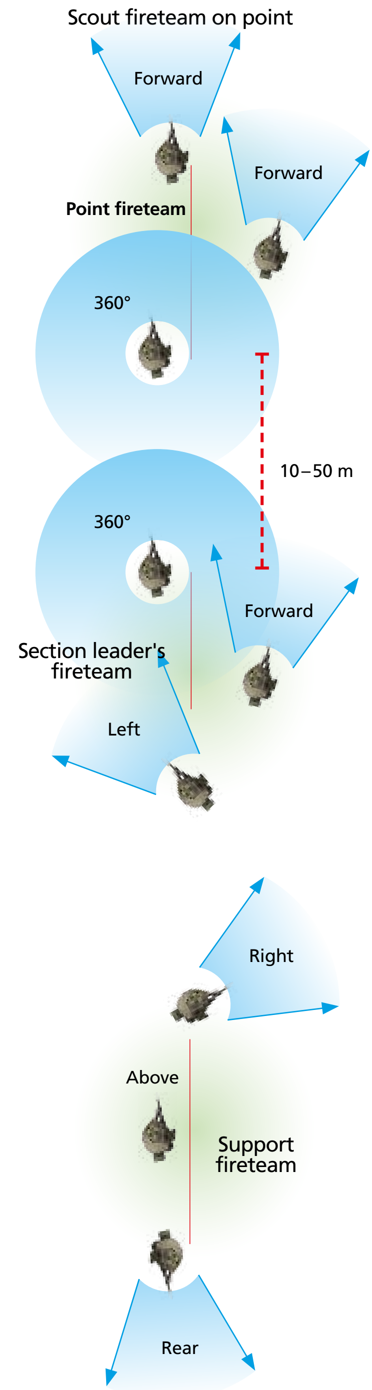
Section movement (in fireteams)
Section file


Arm signal: single file

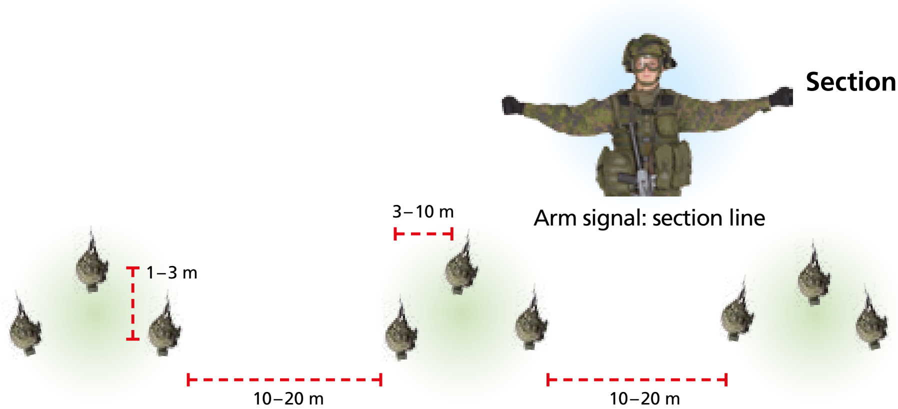



Arm signal: single file


Arm signal: scouts up

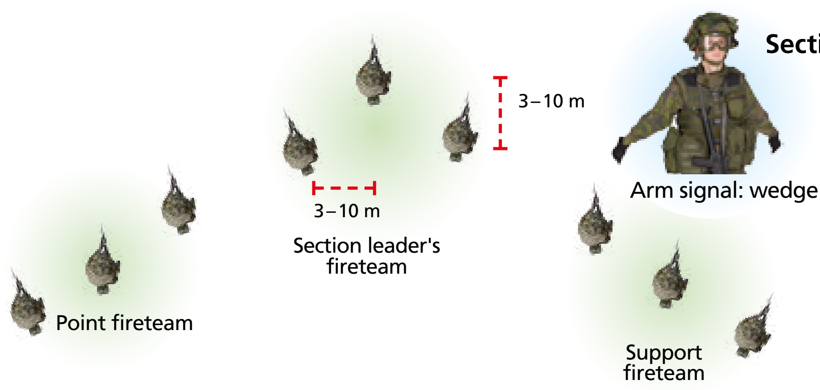


Section line

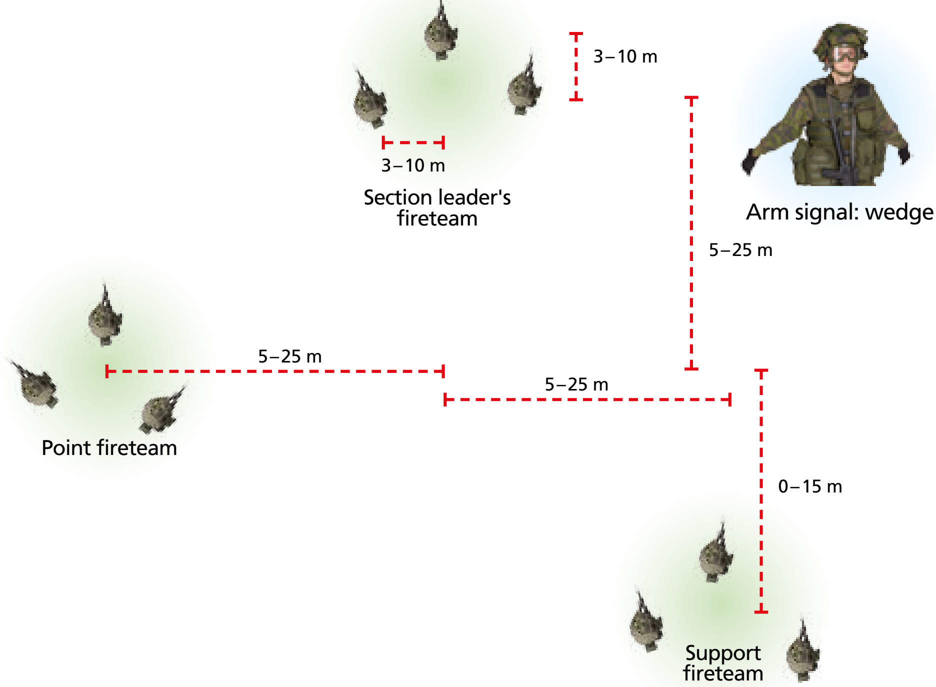


The section wedge and the wedge with fireteams in a wedge are movement formations that make it possible for each soldier in the formation to open fire to both front and rear safely. At least two fireteams are able to open fire to both sides.

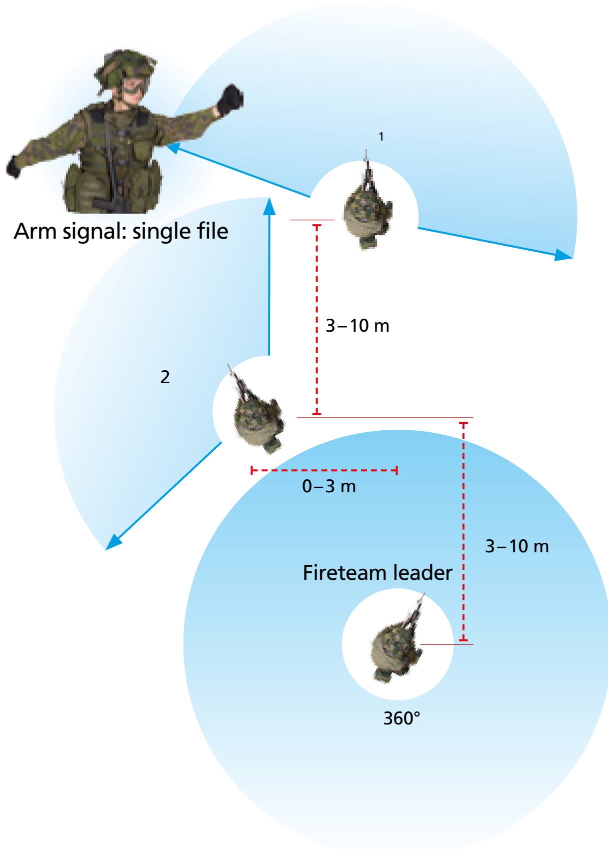
Section wedge

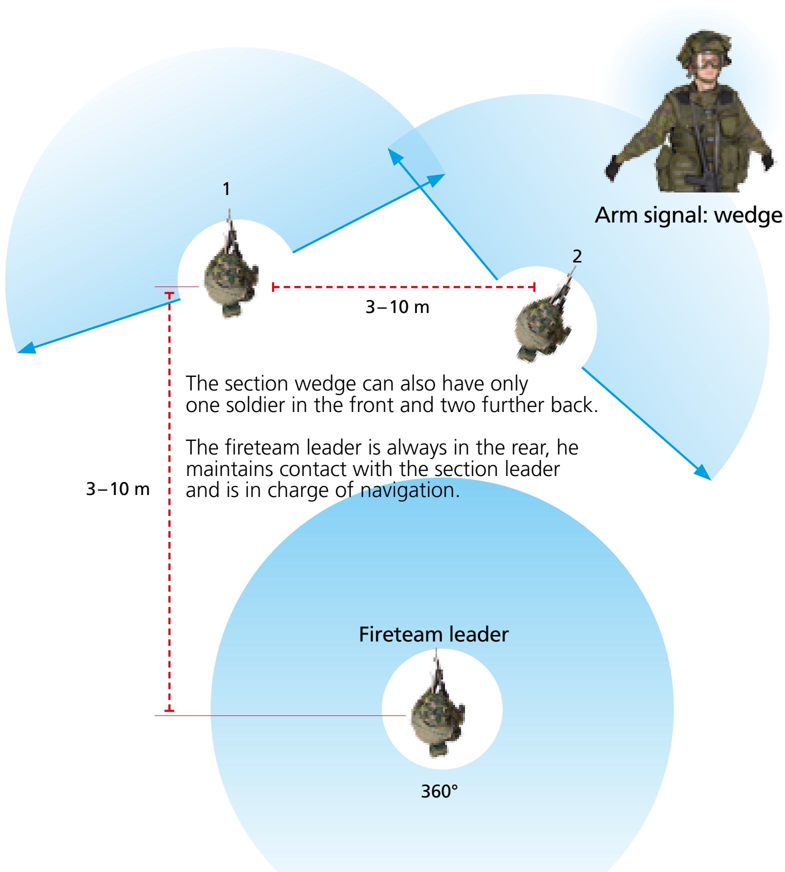


Section's fireteam wedge



Fireteam formations





Actions when fired upon

Take cover by dropping to the ground or open fire in the enemy's direction based on the section leader's example or order and in the direction of the tracers he is firing.

Rush or move to better cover. Locate the enemy with the help of sound and muzzle flashes and notify your team members and section leader of your observation using a fixed location or the clock method. Move to a good fighting position from where you can destroy the enemy and prepare to advance on the section leader's order.

The section's standard techniques and tactics make it faster to begin fighting and help continuing the fight methodically. After contact at the latest the section will spread out into a line and the section uses its own fire to support the movement (options and combinations are fire and movement and support: the scouts give supporting fire, the MG team gives supporting fire, fireteams provide supporting fire and fireteams support each other).

Act according to your section leader's example and orders.

The section leader gives the order to destroy the enemy with hand grenades or blinding with smoke.

The section leader will order the section's combat readiness.

Acting as a scout

Scouts protect the main force when contact with the enemy is possible.

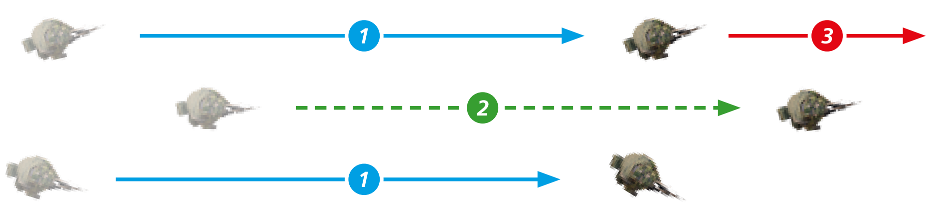
Scouts are used when moving to the area of operation and in the attack.

The scouts advance at the head of the unit so that they detect the enemy before the enemy detects the main force. The movement of the scouts is not as easily discovered as that of the main force.

The scouts advance in a combat-ready mode from cover to cover while observing the terrain in front of them. The movement formation may be the L shape where the junior soldier moves first and is responsible for observation and opening fire whereas the senior is in the lower right and is responsible for navigation and contact with the main force. When acting in fireteams the scouts will use the **fireteam wedge** and the team leader is responsible for maintaining contact with the main force. When contact is likely the combat readiness can be raised and the bounding overwatch method can be used.

The platoon leader or section leader will assign the task to the scouts or the team leader. The **task** of the scouts is to advance in combat-ready mode towards the assigned direction or objective and report enemy sightings to the section or platoon leader and to begin fighting if fired upon. The scouts' equipment usually includes LAW's and smoke grenades.

Fireteams' bounding overwatch



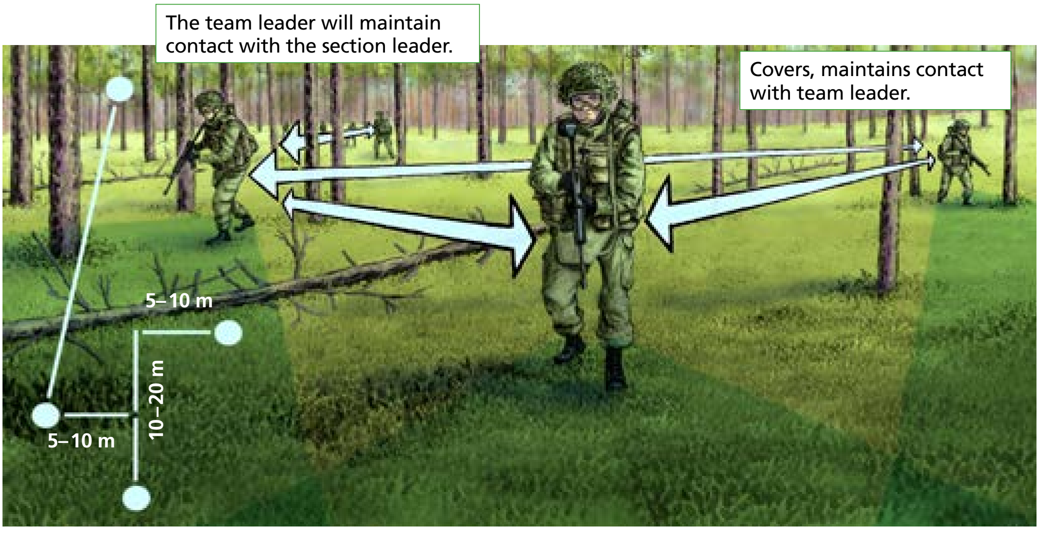
The scouts advance in combat-ready mode towards the assigned direction or objective and maintain visual contact with the section or platoon leader. **The scouts are led with hand and arm signals.** The platoon leader will give new advancing directions with arm signals, stopping with the halt signal and order the senior scout to him with the assembly signal. The order to advance faster is given with the double time signal and slowing down with the signal slow down. The platoon or section leader will order changing scouts. The scouts must camouflage their combat load carefully, use cover and concealment provided by the terrain and provide cover for each other when advancing. The scouts must advance by observing the terrain ahead, silently and weapon at the ready.

In order to hear any possible sound the scouts do not use the hood of the winter camo uniform or the combat uniform. In the attack it is good to use a standard scout pair that can for example be the LAW fireteam. A standard scout pair can be used on a reconnaissance patrol with the platoon's reconnaissance and advance party to scout out the type of terrain, possible obstacles and the enemy forward edge of battle between the point of departure and the breach location before the main force arrives in the engagement area. This way the terrain is familiar to the navigation section leader and to the scouts, which makes the main force's movement considerably faster when advancing to contact and also makes the risk of getting lost smaller.

The safety of the avenue of advance is shown with the signal no enemy in sight. Obstacles or minefields ahead are reported with the halt signal and after this the senior scout moves to the section or platoon leader and reports the observations verbally.

When the scouts see the enemy, they take cover and observe the enemy and are ready to open fire. The senior scout or team leader reports the enemy sighting to the section or platoon leader with the signal enemy in sight and points out the enemy direction with his weapon. More detailed information is reported verbally to the section or platoon leader by moving to them or when the leader has come to the scout.

Scouts' tasks and distances



If the scouts are fired upon, they return fire, take cover and move to a good fighting position. The goal is to protect the main force, to fix the enemy's attention and enable the deploying of the rest of the unit. Enemy tanks are taken out with antitank weapons or blinded with smoke. The scouts support the movement of the rest of the unit in line with the scouts or to their sides. The scouts either join their section in attack or remain in a supporting fire position.

Protecting your own actions

The section leader will assign sentries to the main direction of threat according to standard operating procedure during breaks or halts. The section leader shows the sentry the location or direction and distance from the section. The job of the sentry is to protect the unit from that direction by opening fire on an advancing enemy. When your own action is protected, the rest of the unit can gather within shorter intervals. The sentry will select a fighting position from the assigned location so that he can observe the assigned direction. The section leader will bring the sentry back or he will join the section on an agreed signal from the section leader.

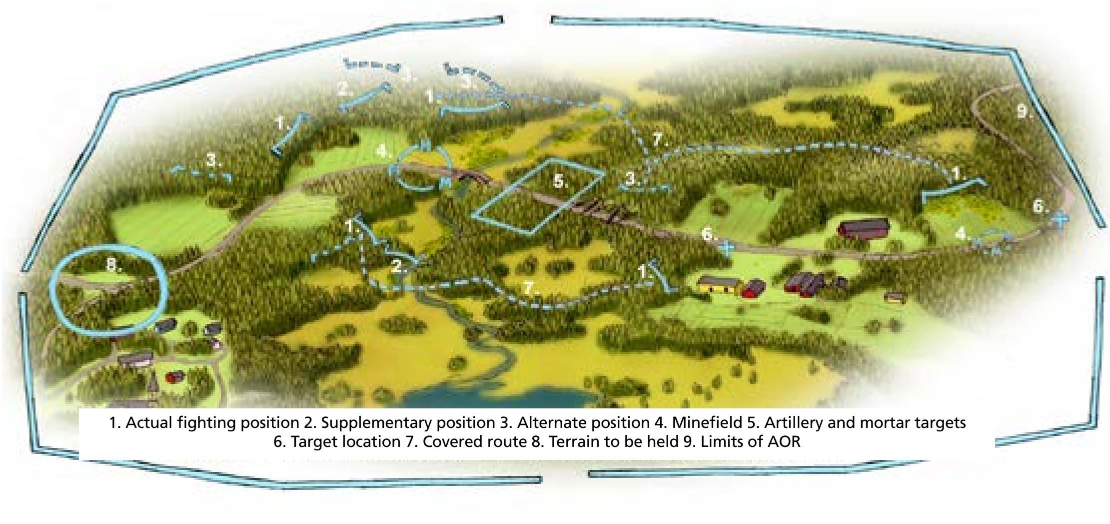
Task. Prepare an example of a scout's report to the section leader about enemy ahead.

5.5 Section in defence

In defence the typical missions assigned to a unit are to fix, to cause casualties and to destroy. The unit will deploy in the assigned area based on the mission and make the necessary preparations required by the combat mission.

In the platoon's area of responsibility the section has the actual section position and several supplementary and alternate positions. The section will carry out the assigned tasks according to the platoon leader's plan. Successful execution of the mission requires careful preparations, which include preparations in the kill zones, preparing fighting positions, reconnoitring routes, camouflaging, diversions, hiding and covering your actions and reserving combat equipment close to the place of use. A section deploys in defence also when staying for a longer period in the same place.

General structure of the defence



1. Actual fighting position 2. Supplementary position 3. Alternate position 4. Minefield 5. Artillery and mortar targets 6. Target location 7. Covered route 8. Terrain to be held 9. Limits of AOR

Deploying in defence

The section leader gives the order to man the positions. It is done by placing a sentry, after which the order to stand-to is given. After checking the section position and possible changes in the placement the section leader will give the order to occupy the positions and to deploy.

The soldiers' field of fire partially overlap in the fireteam's or section's kill zone, so that the section's fire is as effective as possible. Correspondingly, in the platoon's kill zone, the sections' kill zones overlap. The section leader names the main terrain features in the kill zone and estimates ranges to predetermined locations in the kill zone. Naming the terrain makes it possible to direct, concentrate and to assign fire to certain areas. Estimating the ranges makes sure that the soldiers will use the same sight settings to fire at the main terrain features of the kill zone. Ranges that were estimated when preparing positions should always be measured when possible.

The section leader's order is issued in two parts when occupying defence positions.

First, the order to stand-to is given and this includes:

- location of the fighting position
- direction of the sector of fire
- maximum engagement line
- location of the section leader

After this the section leader will inspect the section's position from the enemy's direction and from the fighting positions.

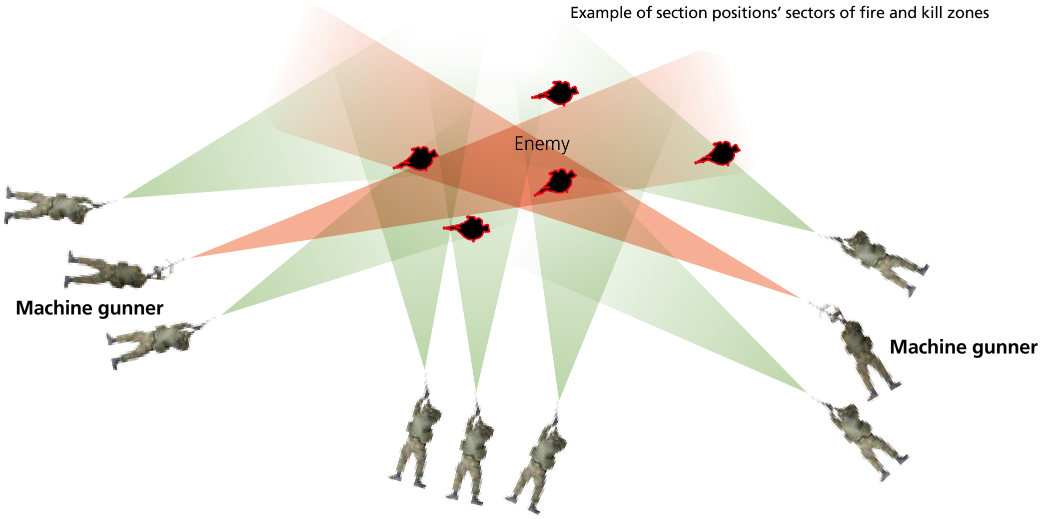
After the inspection the section leader will issue the order to occupy the positions and it includes:

- precise sectors/fields of fire
- names of terrain features and estimating ranges
- details of the maximum engagement line
- orders on opening fire and concentrating fire
- antitank fires (incl. using LAW's and command detonated mines as well as location of minefields)
- location of the section leader
- sentry duties and sounding alarm
- fortification (incl. clearing sectors of fire)
- other friendly forces

The section leader names the main terrain features and estimates ranges



Example of section positions' sectors of fire and kill zones



Fighting position

A fighting position is a location where the soldier carries out the combat mission given to him. When deploying in defence, the section leader usually determines the location of the fighting position. The fighting position should not be at the highest point of the hill or a location where the background will give away the position or the soldier. When selecting a fighting position, you should consider the fighting position locations of the soldiers in your section or fireteam. The section leader will inspect the fighting positions and if necessary, reposition the soldier.

When selecting a fighting position you should also consider the type of soil. A rocky terrain and soil will increase the fragmentation effect and ricochets and may prevent digging. In low-lying or marshy terrain the fighting positions can fill up with water which makes them difficult to use or even prevents their use.

A soldier should have many fighting positions and he must be able to change positions during the battle. Fighting positions include:

- The actual primary fighting position that has a field of fire to the primary kill zone. This fighting position is prepared first.
- Supplementary positions, where you carry out your task from if you are unable to use the primary position. The sector of fire covers the same kill zone as the primary position.

In addition, the section or fireteam has alternate fighting positions from where the soldier can fire upon a separate sector, for example to the rear of the platoon's dispositions or to the flanks.

The supplementary or alternate positions are manned on the section leader's order or according to the rehearsed battle plan.

If the table of organisation includes an armoured personnel carrier or armoured fighting vehicle it supports the section by firing at the targets at the rear of the sector of fire, for example enemy APC's, fire support weapons or helicopters.



Wide field of fire

Selecting fighting position

The requirements for a good fighting position are:

- **A wide field of fire** (choosing the location, clearing vegetation and obstacles)
- **Good support for the weapon** (a wide enough support for elbows and weapon and a thick enough support beam within a suitable distance)
- **Cover and concealment** (protective earth parapets starting from the edges of the sector of fire with necessary level of protection)
- **A secure route for movement** (crawling trench / trench)

Also, in the attack the fighting position must be selected so that the same requirements are met.

The fighting position is fortified so that the enemy cannot shoot at you from outside your sector (protective parapets). The fighting position for a machine gun is selected so that it covers the entire section's sector of fire and also distant targets. The machine gun can be staggered so that it is at a higher point than the others. When preparing a hasty fighting position, aim through the sights and make sure you can fire into your entire sector. Use cover provided by the terrain or structures and in the beginning use a temporary support for your weapon.

Remember, that the support for the weapon does not give cover against enemy fire if it does not meet the protection levels. Be ready to open fire and destroy the enemy in your field of fire. Improve your fighting position at the first chance you get. Remove blocking vegetation or snow from in front of you. When

Cover and concealment





Protected movement route

the situation allows, clear your sector of fire and locate dead zones that you cannot fire into. Inspect the cover and concealment of your position by looking at it from the enemy's direction. Make sure your fighting position cannot be seen directly from the enemy's direction of approach. Begin fortifying the position when the sector of fire has been cleared and the fighting position signposted.

In defence the soldier fulfils his combat task in the fighting position together with his fireteam and supported by the rest of the section. In the primary, alternate and supplementary position the soldier must know his task:

- the names and ranges of the terrain
- a line in the terrain that is 200 m away, the targets further away are engaged with the combat sight
- the boundaries of the sector of fire in the terrain
- maximum engagement line in terrain
- opening fire (when positions have been manned, a simultaneous opening of fire is best done at the section leader's example)
- concentrating and assigning fire
- names and locations of indirect fire targets in the terrain

In addition, the antitank weapon soldier must know

- the maximum engagement line for the antitank weapon
- kill zone
- location of the nuisance minefield
- measured ranges to kill zones
- estimated tank speed in different parts of the kill zone
- good avenues of approach and firing positions for tanks in the kill zone
- supplementary and alternate fighting positions

Task. Prepare a statement for reporting your task in the fighting position to your platoon leader.

Good support for the weapon
(three points of support)



Acting as a sentry

The job of the sentry is to protect the unit or target against sudden enemy activity, if necessary raise the alarm, prevent unauthorised personnel from entering and to detain suspicious persons. The sentry duty, location or route is always determined by the unit leader. He also writes the sentry duty shift list. After a battle or the position has been compromised, the location is usually changed if the unit remains in the area.

A sentry is placed, for example in
- fighting positions
- sleeping area (tent guard, acts as fire guard)
- a separate target
- to protect the unit during a halt.

The location of the observation post must meet the requirements of a good fighting position.

Bivouac guard

The section leader writes the sentry duty shift list and assigns shifts. The task of the tent guard is to
- Make sure the alarm sounded by the fighting position sentry is relayed forward.
- Guard the sleeping area in combat readiness.
- Detain suspicious persons and sound the alarm.
- To wake up those going on guard duty according to the sentry shift list.
- Keep the tent warm and look after the lighting of the tent.
- Check that the soldiers resting or their equipment are not too close to the stove.
- Be responsible for extinguishing possible fires.
- Monitor the radio or other communication devices.

Observation post arrangements

The observation post is in the section's fighting position, in the protected target or close to it. Construct an alarm method from the observation post to the sleeping area. To guard against surprise attacks, use concertina wire obstacles, trip flares or other noise-making devices in the dead zones. The cords for the alarm systems and the Directed Fragmentation Charge must be clearly marked to avoid mix-ups.

Observation post equipment
- flares and/or flare gun
- hand grenades
- binoculars and imaging intensifiers or thermal observation devices
- alarm cord to the section leader's sleeping area.
- detonation cord for the Directed Fragmentation Charge
- sector sketch
- target sign post
- light anti-tank weapons (LAWs)
- communication device

A roaming guard is used for example in a platoon's position or when protecting a target spread over a large area. It is usually used to supplement other security. The roaming guard is usually done in two-man teams or fireteams at irregular intervals. The guard order then always includes the route and the times of the roaming guard. The sentries/guards should move as silently as possible and from time to time or at assigned locations stop and listen and observe. In the winter the route can be guarded on skis.

A sentry/guard must know
- the task
- the reference points in the terrain ahead and range to them (naming the terrain)
- threat directions and terrain features and vegetation there
- orders on opening fire
- method of sounding the alarm
- locations of trip flairs and charges detonated from the observation post



Organising bivouac area security

- use of illumination devices
- artillery and mortar targets and mine-fields.

The sentry must also know where other observation posts and the friendly forces in front of the observation post are.

He must continuously observe and monitor his surroundings. Observations are made by looking and listening. In the dark, listening and using image intensifiers and thermal imagining devices becomes even more important.

When changing the guard, avoid using the challenge so that it is not found out by the enemy. The new sentry must approach from an assigned direction at an appointed time. He will show the agreed silent approaching signal at the recognition line and the sentry replies with another agree signal. When changing the guard, observation must be continued while explaining to the new sentry the observations made during the shift. Pay special attention to suspicious events. Exchange information in whispers.

Sounding the alarm

Alarm should be sounded silently so that friendly actions are not revealed to the enemy. A silent alarm is given by using an alarm device, a communication device or relayed by the sentry to the sleeping area.

In an alarm the positions must be manned as quickly and as silently as possible, unless the alarm is sounded by firing, then you can use voice commands. Alarm is sounded by firing or using a suitable piece of combat equipment when the enemy has reached the maximum engagement line or surprises you.

Actions in an alarm

During the alarm the positions must be manned as quickly as possible. Act in the following way

- Put on your boots
- Take your weapon and sleeping bag cover with you (keep the removed dry clothes in the cover bag).
- Move to the fireteam's proximity defence position and put on your body armour, load bearing vest and helmet.
- In fireteams, move to the fighting positions in a combat ready state, quickly and silently.
- Begin observing and putting clothes on in pairs or fireteams.
- When the situation allows, get more equipment from the sleeping area.

Identifying a person

When seeing a person approach the sentry post or protected target the sentry should always prepare to use his weapon. At the same time, try to find out if there are others coming. The person can be a friendly soldier, an enemy or a civilian. The alarm must be sounded always when you suspect the person to be an enemy.

The challenge (countersign) is used when thinking the person is a friendly soldier. At this time the person is stopped with the command "SEIS, TUNNUSSANA" (HALT, CHALLENGE). The person answers by saying the first part of the countersign, for example, "METSÄ". If the first part is correct, the sentry replies with the second part of the countersign, for example "POLKU" (Countersign is METSÄ-POLKU). If the person does not know the challenge, you say "SEIS – PUOLUSTUSVOIMAT – LIIKKUMATTA, TAI AMMUN!" ("HALT, FINNISH DEFENCE FORCES - STOP OR I'LL SHOOT!") If you cannot identify the person as a friendly, you do not ask for the countersign but act according to the second example.

If the person does not know the countersign, you say, for example "OLETTE KIINNIOTETTU, MAAHAN" ("YOU ARE DETAINED, GET ON THE GROUND). After this the sentry sounds the alarm, aims his weapon at the person and by observation makes sure that he is not attacked by the person approaching or other people who may be following this person. In a two-man guard, the covering party, one of the sentries, covers the action by aiming at the person approaching and is ready to destroy this person and others that may be following or coming from another direction. When detaining someone, protecting yourself in the direction of the target person and surroundings is very important.

Detainees are persons whose freedom has been limited with grounds based on international treaties and conventions. The detainees can be enemy soldiers, civilians or armed combatants.

A soldier may have to detain someone while carrying out his mission. Detaining someone may happen at the sentry post or in battle. The superior must immediately be informed of such situations. The position of the detainee is determined by the superior. Prisoners of War are detainees that can be classified as such based on an international law definition regarding prisoners of war. The soldier's job is not to classify or punish the detainee, no matter what kind of situation.

» *Always prepare to use your weapon on guard duty.*

Acting as a runner.

The task of the runner is to pass the given verbal or written message to the assigned person. The messenger/runner always reports to the message sender when the task is complete. In addition, he will pass on the recipient's answer or report of receiving the message and passes on other observations from the time of the task. He does not spread rumours.

The runner must know the platoon and company (equiv.) dispositions and code numbers and

letter codes of the platoons. He must be able to navigate in terrain both in light and dark conditions. Movement routes are reconnoitred after the unit has deployed into position. In some cases the runner can be told to sleep at the higher command's command post.

The section or platoon leader always tells the runner at least the message recipient, the message verbally or in writing, the location of the recipient in the terrain and on the map and the challenge. The recipient is given as a task and name, or only as the person's call sign. In addition, the runner can be given the route, possible minefields, unit's id-number and actions after the mission is complete.

The message can for example be a report of a unit's deployment or of an enemy, order for raising combat or movement readiness, a written fire plan or situation report.

The runner moves on foot, bicycle, on skis, motorcycle or by snowmobile. The message is delivered as quickly as possible. While on the mission, the runner observes his surroundings and commits to battle only when absolutely necessary. The runner must be ready to destroy a written message for example with a hand grenade so that its content is not revealed to the enemy.

The message is relayed verbally or by giving the written message to the assigned person. The runner identifies the recipient by the task, name or call sign. If so ordered, the runner will obtain a signature that the person has received the message.

Task. Prepare a messenger's report to the platoon leader about the section's situation in defence.

Section in defence

The section fights as a part of the platoon. The section's combat is supported with the fire of the other sections, snipers, heavy machine guns and fire from possible organic armoured personnel carriers or armoured fighting vehicles. In addition, the combat is supported with antitank weapons and indirect fire. The enemy is slowed down by counter mobility, minefields and obstacles. **You are not fighting alone!**

The section must be able to repel an attack by an approximately platoon strength enemy. Therefore a fireteam must be able to repel an attack by an approximately section strength enemy.

The section leader will train and rehearse the section's battle plan with verbal commands and signals. The section will fight according to the rehearsed battle plan, enemy activity and fireteam tasks, as well as the section leader's example and signals.

The combat readiness of the section can be raised by guard duty in pairs, resting with fighting load on in the sleeping area and manning the fighting position with half a section or the entire section. Combat readiness is maintained with training and rehearsals. The unit must, however, be allowed to rest so that they have strength left when the fighting begins.

The section will man the fighting positions when raising combat readiness, on the section leader's order ASEMAAN (stand to) and when the sentry sounds the alarm with a device or by firing.

Starting combat

Combat is started according to the section leader's plan and his example. The biggest casualties are caused immediately after opening fire, before the enemy has time to take cover. In order to surprise the enemy and to get the best possible weapons effect everyone must open fire simultaneously and try to destroy the enemy they see in their own sector. Combat is started

1. on the example of the leader
2. independently when the enemy crosses the maximum engagement line
3. independently if the enemy surprises the unit.



"....Maximum engagement line - from the left corner of the forest to the electrical pole in front and from there to the right following the electrical line. You will open fire on my example..."



"....when the enemy crosses the maximum engagement line"



"..when the enemy surprises the unit."

Maximum engagement line

The maximum engagement line is a point in the terrain determined by the section leader, from where the combat must be started. Depending on the terrain and the mission, the section leader may determine one line for the entire section or one line for each fireteam The maximum engagement line must be placed approximately 100 metres from the fighting positions so that the combat can be started mainly according to the battle plan. However, the maximum engagement line must be far enough so as not to give away your own position before opening fire.

When the enemy crosses the line, the individual soldier or fireteam will open fire. Then the combat is started immediately by the entire unit so that you get the initiative and cause as many casualties as possible to the enemy before he can take cover.

Selecting a target

The target is selected independently, based on the section leader's order or his designation. By assigning targets verbally or by designating with tracers, the section leader can concentrate or assign the fire of his section as necessary. By concentrating fire you can force the enemy to take cover while helping a wounded soldier or deny the enemy freedom of action in terrain such as a bottleneck, between buildings or on a road.

Select a target in the following way
1. The most dangerous
2. The closest
3. Other enemies in the sector of fire.

Choose key enemy personnel as targets, such as leaders, vehicle crews and snipers when the situation and shooting distance allow.

A target can be designated by using
- from small-to-large method
- the clock method
- a laser designator
- using named terrain point
- with the commands "VIHOLLISTA OIKEALLA", "EDESSÄ", "VASEMMALLA" (CONTACT RIGHT, FRONT, LEFT)
- by firing tracers or illumination rounds at the target

Designating a target using the small-to-large method
- target: for example "VIHOLLISEN KK" (ENEMY MG)
- fixed point: for example "SILTA!" (BRIDGE!) or "PUNAINEN TALO!" (RED HOUSE!)
- direction from the fixed point: left, right, front, rear, up, down
- distance from the fixed point: for example "SATA PIIRUA!" (100 MILS!) or "30 METRIÄ!" (30 METRES!)

If necessary give many fixed points and directions so that the target can be designated. When the soldier has seen the target, he reports, "MAALI SELVÄ!" (TARGET ACQUIRED).

Preparing for night combat

Functioning in the dark will be enhanced with preparation and training. The decisive factors are simple and rehearsed tactics and techniques and that the soldiers have learned to use all of their personal and unit equipment also in the dark.

The preparations for night combat should be done in an organised way during daylight hours. The goal of the preparations is to enable actions and combat also in bad lighting conditions. Some of the preparations are also a part of normal preparations during daylight hours. Night-time preparations include

- inspecting that the weapon is functional
- inspecting the image intensifier and thermal scope
- readying the night sight or the image intensifier sight
- zeroing night sights
- marking of the soldiers
- inspecting personal kit and equipment
- inspecting unit equipment
- preparing vehicles
- rehearsing mission specific actions with basics tactics and techniques
- preparing illumination and training for illumination.

Inspecting the sights

The night sights are flipped up or the image intensifier scope is attached to the weapon before darkness falls.

The functioning of the image intensifier scope is inspected already during daylight hours by switching the power on the scope and observing through it. At the same time, check that the sight settings are what you zeroed them into. The inspection is easy when you have prepared a sight card during the zeroing in process. Also check the attachment of the side rail, because the screws can loosen in use. If you suspect that the sight settings have changed and you cannot correct them with the sight card, notify your section leader. In that case, the zeroing must be done by shooting immediately when the situation allows.

It must be noted that all equipment that has illuminated dials or lights (for example, field radio, GPS and watch) can expose and compromise the unit, just like the use of other lights. Lit screens and dials can be masked with tape or clothing.

Actions in the dark

The dark makes soldiers' actions more difficult by limiting the use of a human's most important sense, sight. Making observations and estimating distances becomes more difficult in low light, so even a familiar location or terrain can look odd. When moving from light to dark, you do not see much at first. The eye, however, adjusts to the low light and your night vision improves considerably in 5-10 minutes. In 20-30 minutes the eye has reached its best night vision ability.

When preparing for example for sentry duty in the dark, you should be in dark conditions at least 5 minutes before your shift starts. You should avoid looking at bright lights for the same reason, or if it is necessary, keep one eye closed. When the sense of sight is limited, other senses like hearing and smell will try to compensate for the lack of sight.

During battle your night vision may worsen because of weapon muzzle flashes, tracers and illumination.

In the dark, combat is usually begun from a closer distance than in daylight in order to achieve surprise and better accuracy while shooting. Often in the dark the enemy is observed later

than in daylight. Using weapons in the dark gives away your positions easier than in daylight. For combat in the dark, alarm devices (for example trip flares) are placed in the area between the maximum engagement line and the fighting positions. When the trip flare is triggered most of the enemy is most likely in the section's engagement zone already. When using image intensifiers, you should try to open fire without using visible lights which adds to the surprise and the effectiveness of the first volley of fire. Illumination should be used only after the battle has started if all soldiers do not have image intensifier scopes. Weapons without image intensifier scopes are primarily fired only during illumination. In the dark, targets are designated with the same methods as in daylight.

You must pass all observations and section leader commands to your fireteam members. Pay special attention to delivering the message and acting according to orders. The use of the battle code is enhanced in the dark because it is not easy to identify others by outward markings in the dark.

When using illumination, the illumination should be directed on the kill zone, not friendly positions.



Cooperating and working in unison with your fireteam in defence

When preparing for combat

1. **Estimate the enemy's activity.** Estimate when, from where and how the enemy will be sighted. How will the enemy act against us both in light and dark conditions? How will the enemy attempt to take us by surprise and how can it be prevented?
2. **Look at the terrain.** Find out where you should clear fields of fire. Where are the dead zones where the enemy can seek cover? Are the protective parapets facing in the right direction and wide enough? Is your position well camouflaged or will clearing the fields of fire or signs of fortification give it away?
3. **Think about how you are going to carry out your task from your primary and alternate fighting position.** Find out the limits of the sectors of fire and the maximum engagement line in the terrain, indirect fire targets and named terrain features in the terrain. A soldier must know the ranges to terrain locations in the field of fire. Find out if it is possible for you to fire at a dead zone in your team members' field of fire. Think about and agree on how to carry out a fire mission in the dark. The section leader will give instructions on moving to the alternate and supplementary positions. Agree on cooperation with your fireteam: assigning targets, firing on dead zones and covering each other.

During combat

1. **Observe, locate, identify and destroy the enemy.** Sounds, movement, background, reflective surfaces, lights, shadows, colour, avenue of approach and muzzle flashes can give away the enemy. Identify the enemy by his combat equipment, weapons and vehicles.

   The order in which to engage the enemy is as follows:

   1. the most dangerous enemy for you,
   2. an enemy that your team member cannot destroy,
   3. an enemy getting to cover,
   4. leaders: platoon leader, forward observer, section leader, vehicle commander,
   5. specialist soldiers; radio operator, machine gunner, range finder operator, antitank soldier,
   6. sniper etc.
   7. all enemies in your sector, starting from the easiest target.

   Aim at the centre of the target, keep firing at the target until you see a hit or the target is unable to fight.

2. **Fight in cooperation with your fireteam.** Cooperation with others is communication and interaction. Point out targets according to named terrain, fixed point or the clock method. Agree on who takes out which target. Observe whether your team member's rounds are on target and notify him if he needs to correct his aim.

   Reload your magazines as your team member covers you. Share ammunition if needed.

   Destroy the enemy that has reached your team member's field of fire. Cover your team member if they are doing a special task (for example using smoke grenades, illumination). Provide first aid to your team members. Take your team members' magazines and special equipment for your own use, if they cannot fight any more.

3. **Follow your section leader's example, signals and orders.** Follow the section leader's example in opening fire, concentrating and assigning fire and when ceas-



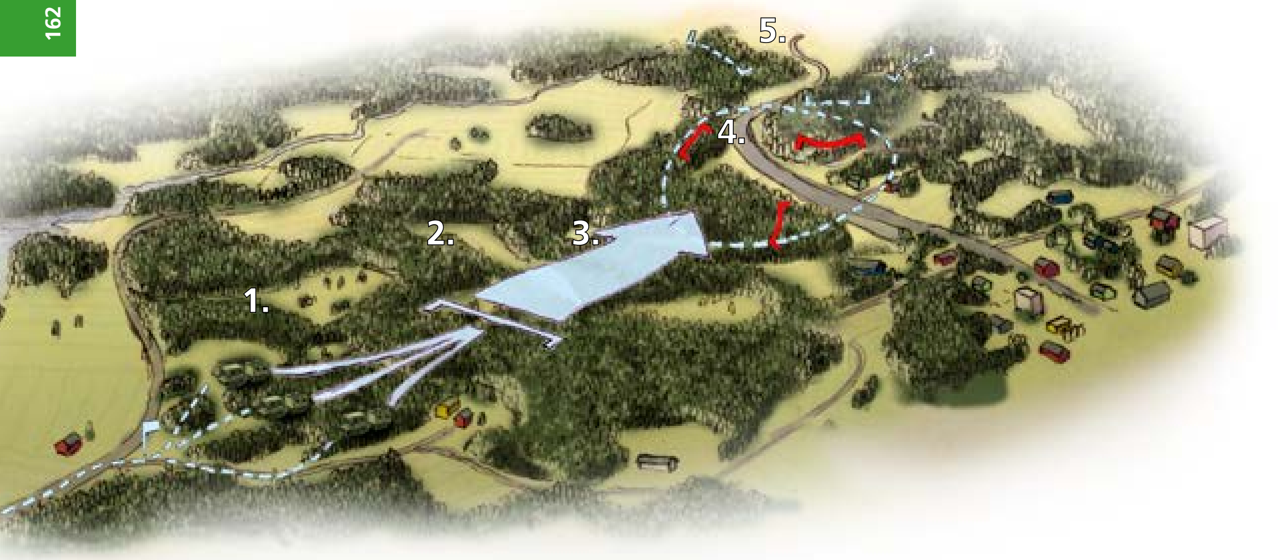
ing fire. The section leader will give orders and signals on when to illuminate, use smoke grenades, destroy main battle tanks and man the alternate positions. When necessary he will give the CBRN warning and alert as well as the order for taking cover against indirect fire.

4. **Notify your section leader when you see the enemy.** Report the following information: enemy number, type, location and actions. Report sightings of the enemy in the direction of the alternate positions, the enemy's preparations to use CBRN agents (incl. use of CBRN respirators) and the wounding or death of your team members. Report when you have used half of your ammunition and report the number of special equipment before it has run out.

After a repelled attack

Maintain visual contact with the enemy. Reload your magazines and share rounds with your fireteam so that you can all continue fighting until ammunition resupply. Provide first aid to yourself and your fireteam. Repair your fighting position. Report your combat readiness and sighting of the enemy to the section leader and maintain your combat readiness and ability to function. With your fireteam assess the situation and your own actions.

Contact with the enemy must not be lost, so as not to be caught by surprise. If necessary, your platoon will send out a reconnaissance patrol into the terrain in front of you. Information about soldiers going into the terrain in front of you must be relayed to everybody.



1. Dismounting area 2. Assembly area 3. Movement to contact 4. Engagement zone 5. Objective

5.6 Section's attack

The goal of an attack is to destroy the enemy in the kill zone and to capture the assigned objective. The attack should be directed at the enemy's flank or rear. An attack is normally supported by indirect fire either by artillery or mortars. Reconnaissance and intelligence gather necessary information about the avenue of attack and the target. The section will move into contact according to the battle plan of the platoon leader in a platoon formation (section line, wedge , section column of twos) or by infiltration (attack with an assault detachment). After destroying the enemy in the kill zone the section will carry out the next mission or task. In order for the attack to be successful it is important that the soldier understands the meaning of his actions as a part of the unit's combat and that he knows the standard operating procedures and tactics and techniques.

Concepts of an attack

Preparations before moving to the area of operation for an offensive

Preparations before moving to the area of operation are made so that an attack can be conducted without delay and as a surprise.

A soldier prepares for attack by, among other things, cleaning his assault rifle, filling up his magazines, getting his hand grenades and smoke grenades ready and by drinking fluids and eating.

Camouflage bare skin and combat equipment. Carry your marching load and skis as well as section equipment in the vehicle. Load the vehicle so that you can easily unload the equipment.

Get in the vehicle when the section leader orders you to do so. Go to your position and look out in the direction you are told to look at. Make sure you know what your task and your section's task is and what the situation is.

In the assembly area, getting ready for an attack is done in the following manner:

- assembling the units until the given strength for materiel and personnel is reached
- distributing additional and special equipment
- servicing your personal materiel
- preparing and packing the equipment you will need during the attack
- vehicle maintenance and refuelling
- marching and assault order
- rehearsal of upcoming task
- maintaining of combat readiness (fluids, food and rest).

Functions in the dismounting area and proceeding to the assembly area

In the dismounting area, the section gets out of the vehicle, camouflages the equipment and gets into formation for proceeding. When you dismount the vehicle, follow the section leader's example, camouflage the vehicle according to your regular task and assume your position in the formation that has been ordered. In winter, attach your skis after the section is in formation. Take with you any speciality equipment ordered by the section leader, such as hand grenades, anti-tank weapons, smoke grenades, anti-tank mines.

Follow the section leader's example when advancing in file formation on foot or on skis so that the section stays together and you maintain contact with your neighbouring section. Relay the section leader's signals and commands and observe your environment closely. Pass on your observations to your partner and inform your section leader. Do not make loud noise.

To remain undetected by the enemy's unmanned aerial vehicles (UAV) and helicopters, you are to proceed using covered routes and go under air cover when needed. You are not to reveal your advance by shooting in the air before combat contact.

Proceeding in the assembly area

In the assembly area you get into attack formation, the section leader gives specifics regarding the Operations Order and, among other things, preparations for the use of indirect fire during the attack are made based on the latest reconnaissance (recce). The section goes into attack formation in the assembly area. The section commander orders a team of two or three to cover the assembly area.

Based on the section leader's order, a soldier must know where the enemy is located, what is the section's and platoon's task and his or her own individual task. He must also know where the point of assault is, the platoon's line of attack, objective and the assault's line of continuation. Start moving forward by following the section leader's example or signal.

After a more detailed assault order, a soldier is to know:

- the enemy (numbers, type, location)
- the section's and the platoon's mission and the commander's intent
- the assault formation
- kill zone
- the direction of the assault on a compass (set the coordinate on the compass)
- the terrain objective and the distance to this objective
- the focus of anti-tank measures
- support during the assault (indirect and/or
- direct fire)
- the placements of the section and platoon commanders within the formation
- evaluation of casualties and replenishment of ammunition.

Advancing to contact

The assault team advances during indirect fire within safety distance from grenade shots. The fire observer determines what this safety distance is. Set your own tempo according to fire preparations. Attack in the direction that has been ordered by the commander, follow the section leader's example or his signals and maintain your position within the formation. Pass along the section leader's signals and orders to others. Take cover when you stop.

Start firing either by following the section leader's example or when you detect the enemy. Conduct the attack by supporting your teammates. Use the terrain to your advantage and proceed in a way best adapted to the situation. Be active and quick.

The section leader may employ the following for fire support: machine gunners, snipers, designated marksmen or he may form a support fireteam.

Combat within the enemy's formation

An individual soldier's ability to destroy the enemy is one of the prerequisites of a successful offensive. The enemy is defeated through aggressive and determined use of fire, skilled use of weapons and combat equipment as well as with movement and soldiers working in unison.

During the attack

- destroy any enemy you encounter and keep count of how many rounds you have used and keep count of your other armament too.
- always know where your team-mates and your section are and what the situation is.
- try at all times to be aware of where the enemy is and in which direction he can fire.
- as you advance, use the terrain for cover and before you set out to continue, look out carefully for places you could take cover in next.
- advance in a manner that is suitable for this situation.
- TAKE THE INITIATIVE.

By overrunning and clearing trenches, earthworks and weapons emplacements, as you encounter them you ensure their usability for friendly-force purposes. Overrunning must be started immediately when the first soldiers are within close fighting range of the objective. Clearing is done together. The first advancing team of three begins the overrunning.

Overrunning is supported by the section's crew-served weapons to force the enemy to seek cover. The point fireteam is brought enough hand grenades and the team must be changed frequently. It is essential to maintain a quick tempo and aggressiveness while clearing, as this prevents the enemy from initiating its own countermeasures. The intersections in the trenches that cannot be cleared immediately must be cleared by the follow-on forces. The methods used in overrunning can also be applied to combat in urban areas.

In clearing, the team's first soldier is the point man and the second is the thrower, the third covers the first two or, if the situation calls for it, acts as a second thrower.

Example of clearing a trench by a fireteam.

1. The point man proceeds first in the trench and stops before a corner.
2. The point man keeps his weapon in constant readiness, pointing it at the corner and informs the thrower of the corner ahead.
3. The team's third soldier covers the back of the point man and maintains contact with soldiers who are further back.
4. The thrower prepares the grenade and declares he is going to use it. The thrower must aim to throw the grenades in the next two corners.
5. The point man fires around the corner immediately after the grenade has exploded and continues to advance to the next corner where the same procedure is repeated.
6. The thrower follows the point man immediately and is ready to take part in close-quarter battle.

If friendly forces may be present in the target, you must shout out for identification by using, for example, the battle code. By repeating the battle code you ensure that there are no friendly forces behind a corner. Using passwords allows you to keep contact with the rest of the section. By throwing the grenades in the following two corners, the activity becomes less predictable, which in turn makes it more difficult for the enemy to engage in countermeasures.

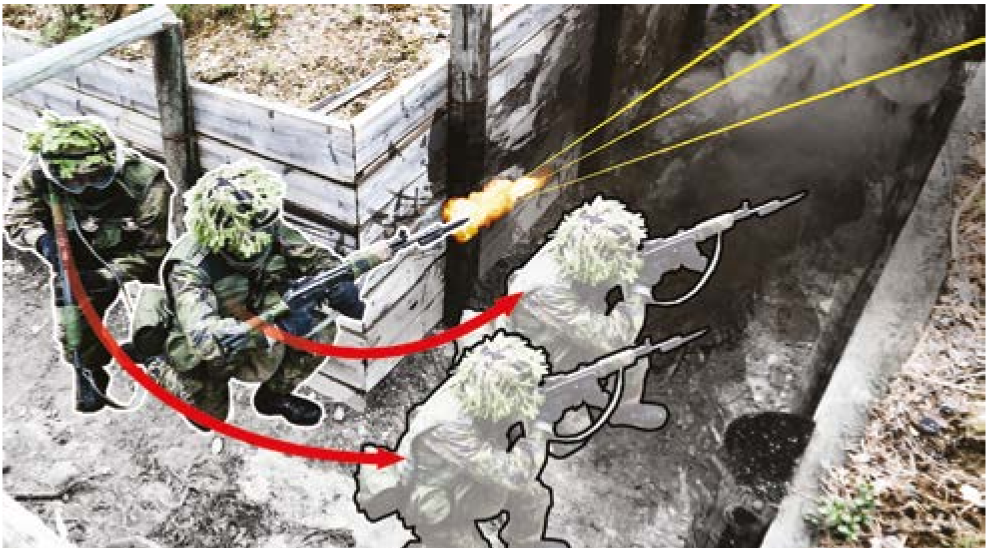
An assault

An assault is a way of advancing whereby you penetrate an enemy's formation at close range. In an assault, you move from cover to objective without interruption and destroy the enemy ahead. In an assault, the initiative is grabbed through the quick, aggressive and surprising advance of several soldiers at the same time.



A hand grenade can be thrown up in the air behind a corner in a trench or by bouncing it off the wall.





These are the most important elements of a successful assault. Fire support is used in an assault if possible, but the organising of fire support must not jeopardise the elements crucial to success just mentioned. You start preparing for an assault following an order or signal while still under cover. You are to replace your weapon's magazine with a full magazine, you make sure you have hand grenades and smoke grenades within easy reach, you fix the bayonet and you set your weapon to automatic.

A section or a part of a section conducts an assault when

- contact with the enemy is achieved at close quarters unexpectedly
- the enemy's formation is about to be breached or its activities have become immobile
- when breaking out of an encirclement
- when penetrating a trench or building.

Actions upon reaching the objective

At the objective, get into a defensive formation and get ready to repel the enemy's counter-attack. Recce and contact with the enemy is to be maintained continuously. The enemy usually conducts a counter-attack when it has lost terrain or an area. That is why it is important to begin digging and other defensive preparations without delay.

A soldier's measures when at the objective

- Choose a fighting position immediately when the section stops, make the most of the cover offered by the terrain, low-lying areas, fighting positions and other constructions.
- Check that you can fire within your killing range by aiming through your weapon's sight.
- Place a full magazine in your weapon and distribute rounds to those who need them within your two-man/three-man team.
- Keep your section leader informed of the situation (concerning rounds, water, etc.).
- On your own initiative, dig a fighting position and fix it when the situation allows for it.
- Take turns with your team-mates in preparing the fighting position.

The section leader will order the building of minefields, the setting up of explosives that are detonated on command, sentry duty and recce. When required, he will move soldiers to a fighting position that is more favourable for the section, in which case you must start fighting position preparations immediately again.

» *How do you support your team-mates or your section? Think about what is required of you to make the section's attack successful.*

Making observations and working in unison with your fireteam in an assault

Observe the enemy, the terrain, your fireteam, your section leader and how your section is operating. Follow your section leader's signals and orders - and relay them to your fireteam and others in your section. Retain your place in the formation and keep up with your section's activities. Take cover when you stop and keep your weapon in such a position that you can fire it in the direction you are heading at all times. Prepare to proceed when the section leader shows the example or signals to advance. Keep an eye on your sector of observation and search for signs of an enemy formation. Give-away signs include cleared fields of fire, barriers, signs that someone has been digging, fighting positions and vehicles. Movement easily gives the enemy away. Keep your weapon aligned with your vision. That way, you can open fire before the enemy. Relay any sightings of the enemy to your team-mate and the section leader. As you advance, look for sheltered fighting positions ahead and ways forward.

A fireteam's coordinated activity in an assault

Think about how you are going to carry out your task
Assess the situation together with your fireteam. Agree on the objective, the path you are going to take it to reach it, support and signals beforehand. Let your fireteam partner know if you see signs of the enemy and relay the section leader's signals and orders to him/her. Encourage your team-mates.

Advance to objective
Agree on the path forward with your partner/ fireteam and support your partner's advance. Only start moving yourself once your team-mate is ready to support you. Support your team-mate's advance and rushes by firing at the enemy and, if needed, by throwing smoke grenades. Always keep track of your fireteams' locations.

Destroy the enemy
Point out the enemy to your partner/ fireteam. Destroy the enemy that is stopping your team-mate from advancing and which your team-mate cannot destroy himself. Observe whether your team-mate's firing is reaching its target and notify him if he needs to correct his aim. When needed, share rounds or special materiel.

Support your partner / fireteam
Support your team-mate with fire while he is changing his magazine or correcting a malfunction. Warn him of the enemy or of danger. If your team-mate gets hit, drag him to cover. Give him first aid using his own battle dressing. Report to your section leader if your team-mate is seriously wounded. If your team-mate can no longer fight, take his most important special materiel into your use, such as his machine gun, night sight, anti-tank weapon, rifle grenades, satchel charge or hand grenades and full magazines. When needed, help the medic while he gives first aid to your team-mate.

Task. Prepare examples of what you can agree on when preparing for a coordinated assault.



Advance in rushes

Advance in rushes if you need to advance without cover or you are proceeding in an area that is out of eye sight but under fire. The length of these rushes will be determined by the quality of enemy fire, its fire power and the shape of the terrain. Usually a rush will be less than 10 metres in length or take no more than three seconds. You prepare to rush while in concealment and must end up in concealment too. When rushing, you carry your weapon either by holding the top of the assault rifle or by holding it by the handle with the stock in your armpit.

Do these things first before you rush
- Check the amount of rounds in your magazine (min. 10 rounds)
- Choose a good fighting position that is 5-10 metres ahead.
- Choose a good moment to rush or wait for the order or signal to proceed.

The different phases of a rush
- If required, fire ahead.
- Hold your assault rifle by the top of the rifle.
- Take a steady position from which to start running.
- Start moving quickly.
- Rush while running low.
- Throw yourself in the fighting position you'd planned.
- Continue moving immediately if you cannot engage from your fighting position, your fighting position is under enemy fire or you are to proceed further by rushing.

A section's fire and movement

When in contact with the enemy, movement always needs to be covered by fire. When proceeding in teams (in twos), the section leader calls the tempo for both the section's fire and movement.

An example of a section's fire and movement: the phases and commands

- "SYÖKSYEN ETEENPÄIN" (ADVANCE IN RUSHES) the section leader and senior fireteams advance in rushes and the junior teams support, then the senior ones support and the junior ones rush to their position etc.
- "KK TUKEE, SYÖKSYEN ETEENPÄIN" (MG SUPPORTS, ADVANCE IN RUSHES) the machine gun fireteam supports, the rest of the section advances in rushes as just described above in fire and movement teams, the section leader orders the machine gun to the same level as the rest while the rest of the section supports and
- "PUOLIRYHMITTÄIN SYÖKSYEN ETEENPÄIN" (ADVANCING IN RUSHES HALF A SECTION AT A TIME) one half of the section supports while the other rushes etc.

The section leader calls the tempo using simple commands, e.g. ETEENPÄIN (FORWARD), TASALLE (TO THE SAME LEVEL) and ASEMAAN (TO POSITION). The half sections are best named by the surname of their leaders so that there is no confusion as to who leads the platoon.

When the section operates in fireteams (teams of three), it is the leader of the fireteam that makes the decision to advance and he says so by ordering: "SYÖKSYEN ETEENPÄIN". As a general rule, the rush is done one soldier at a time in the forward direction.

An example of how a fire and movement team proceeds: the phases and commands

- The soldier who is last begins first in the forward direction following the command "SYÖKSYEN ETEENPÄIN" at a moment of his choosing.
- As he starts to move the soldier lets others know he is going by shouting out his name or number: "KOLMONEN SYÖKSYY!" (NUMBER THREE RUSHING) The moving soldier rushes to the front of the other soldiers so as to be first in the fireteam. When this soldier has reached the front of the fireteam and when he is ready to support the movement of other team members, the soldier is to shout out: "VALMIS!" (READY)
- Advancing in rushes is to be continued until the leader of the fireteam orders getting into formation, to continue advancing in some other manner or for the team to disengage.

When required, the tempo of fire and movement is made more specific by commands, for e.g.:

- "YKKÖNEN TUKEE, SYÖKSYEN ETEENPÄIN" (NUMBER ONE SUPPORTS, ADVANCE IN RUSHES) in which case NUMBER ONE supports from his fighting position and NUMBER TWO (leader of the fireteam) and NUMBER THREE rush.
- "YKKÖNEN MENE, KOLMONEN TUKEE" (NUMBER ONE GO, NUMBER THREE SUPPORTS), in which case NUMBER ONE moves contrary to the standard order and NUMBER TWO and NUMBER THREE provide support.
- "YKKÖNEN TUKEE - SYÖKSYN", in which case NUMBER ONE provides support and NUMBER TWO advances.

Assault in the dark

A soldier prepares for an **assault in the dark** through the following procedures: fireteams are to check together that their combat equipment is adequately camouflaged and silenced, they are to take out the night vision weapon sight as well as attach or paint a white direction stripe on their weapons, they are to fill their magazines with tracer ammunition and they are to attach a white mark and/or a white piece of clothing to the back of their webbing.

The section leader orders all other preparations for operating in the dark and will provide any additional instructions. During an assault, you must follow carefully where your fellow soldiers and the section leader are advancing. White marks and other marks make targeting and keeping in contact easier. Leaders may have a red light that is directed backwards. Find out what marks your leader is using.

A soldier must keep his own position within a formation. You must repeat and relay all signals with great care making sure that the soldier behind you has received the message.

Compared to when it is light, the formation advances two-three metres at a time and takes advantage of obvious and easily detectable terrain features. When moving you are to be silent and make no sound. Do not use lights or smoke cigarettes while advancing. Changes in formation must be done in a calm manner. The best way to carry out these changes is to stop, change and then proceed when the formation is as it should be. While advancing, the formation should move in line.

When combat has begun you must pay special attention to commands and signals as well as to what the section leader and other soldiers are doing. When illumination is good, you are to stay in a favourable fighting position and fire. When the enemy uses illumination, you must conceal yourself, as movement will give you away, especially during illumination. The tempo of the section's fire and movement is determined by the same factors as during daylight. All soldiers must strive to keep the assault formation. The platoon commander can order the tempo for movement by blowing commands with a whistle (one whistle means section 1 rush while others provide support etc.). It is best that the platoon commander orders the use of illumination e.g. in phases. When the platoon commander uses a whistle to give out commands, it is easy to ensure that none of the friendly sections are moving while flares are being shot.

You must try to use your rifle only during illumination unless your weapon has a night sight. When firing, use quick aimed single or double shots. If there is no illumination, aim at the enemy's weapons that are exposed by the light caused by firing.

When engaged in close combat and you are unsure of where friendly forces are located, use the battle code. When engaged in close combat, you can use phosphorous grenades and improvised illumination to improve visibility.



5.7 March training

March training and building up your physical capability

A good **physical capability** is a basic requirement for successful military training during peacetime. Despite the increase and developments in transportation, the demands imposed on a soldier's physical condition during wartime have in no way diminished.

In march training, soldiers are taught marching skills and they acquire better physical endurance. Once a soldier has built up his physical endurance to a good level, he can start developing the versatile military physical capability needed by a conscript.

The objective of march training

A soldier must be capable of moving from one place to the next without losing his fighting capacity. Transportation in a vehicle is not always an option, in which case soldiers must instead move on foot, cycle or ski. Marching skills, as well as a good basic physical condition, gradually improves during a conscript's time in military service.

The goals of march training

The goal of march training during the basic training period is that everyone can function as part of a group either when marching on foot or on skis. A recruit must be able to complete a 15-kilometre march on foot in the terrain while carrying his fighting load within eight hours without losing his or her combat capability.

Retaining combat capability means a company being able to get into a defence formation and independently carry out support measures after the march and being able to either carry on marching or engage in combat. Marching exercises also contain individual and company-specific combat training. During the basic training period, recruits must also learn individual and section-level activities for motorised marches.

How to prepare for a march

How you should prepare for a march on foot, by bicycle or on skis

Hygiene
Wash yourself thoroughly the night before. Make sure that you especially wash your feet, groin and buttocks well. If needs be, use talcum powder, as this will prevent chafing. Clip your toenails.

Packing your fighting load
Pack the equipment you have been ordered to pack. Try on your webbing and rucksack so that you can check that the weight balance is as high as possible and close to your back so that the rucksack does not move about.

Maintaining your skis and bike
Check that the screws on the skis are properly screwed and that the bindings are not broken. Wax your skis according to weather conditions. Check your bike's condition. Pump the tyres full of air. If the chains need oiling, oil them.

Clothing and equipment
Pack clean underwear. Check that your shoes fit and that they are in good condition. Use insoles with footwear. Wax your leather combat boots. During the march, wear two pairs of socks on top of each other, as this prevents blisters. Dress according to weather conditions. Pack extra insoles and several pairs of clean socks. Wax your skis and adjust the bindings so they fit you.

Food and drink
Eat properly the day before, especially food with carbohydrates. Eat breakfast. Have some rye crisps in your pocket and liquid in both your water canteen and extra water canteen.

In winter, put your water canteen under your outerwear to prevent the liquid from freezing.

Camouflaging your equipment
Check that your equipment is packed so that it does not make noise while you move. Paint bare skin and camouflage equipment according to the orders of the section leader.

While marching

Advancing
Maintain combat readiness while marching by following the example of the section leader and his signals and by looking in the direction that you have been ordered to observe. Keep a distance of 5 metres between you and the soldier marching in front of you. When it is dark, you can hold a closer distance. Pass along signals and orders to others.

Enough food and drink
You need to drink enough liquids (2-2.5 dl every 10-15 minutes = about one litre per hour) to make sure your body holds itself at the correct temperature, that you maintain your physical capability and to avoid drowsiness. You should drink liquids so that you do not feel thirsty during the march.

Halts during a march

The section leader will stop the section using the HALT signal, order certain soldiers to pull security and inform everyone of how long the halt will be. Go under air cover immediately. Keep your rifle within arm's reach.

Remove your webbing and adjust it if there is something that is not right.

During the break, cool down your body by loosening any clothes that are constrictive. Once you have cooled down, put on more clothes so that your body does not cool down too much. During a long break, put on your break jacket and remove it before you continue marching. Having too much clothes on can lead to heat exhaustion.

During a bicycle march you can ease the flow of blood in your legs by lifting them up for a moment.

Check the condition of your feet. Take care of any blisters. If you feel you need to, put on a clean pair of dry socks. If possible, wash your feet during a long break. Let your section leader know if you have blisters that are so bad you cannot take care of them yourself.

During breaks, drink at least 2.5 dl of water or diluted juice. Fill up both of your water canteens. Eat food rich in carbohydrates to keep up your energy levels, such as bread or fruit.

Prepare to continue marching once the section leader commands VALMISTAUTUKAA (GET READY) or gives the HUOMIO (ATTENTION) signal. Relay the signal on, take your rifle and equipment with you and start moving silently once the section leader has commanded MARS (MARCH) or given the hand signal to go.

Being on a bicycle march

Getting your bike ready
Adjusting your bike so that it corresponds to your height will make a bicycle march that much easier. Adjust the saddle so that when you pedal downwards, your leg is straight and your foot is at a natural angle. Be careful to not have the saddle so high that you would need to move your buttocks from side to side while pedalling. If needed, you can move the saddle a little forward or backwards and adjust the angle of the handlebars.

Attach your rucksack and, when required, any other equipment to your bicycle while on the bicycle march. However, you are to carry your rifle on your back, or, if you are a scout, by your side, at all times. Your tyres should be so pumped up with air that you cannot press a dent in them with your fingers. This makes

pedalling lighter. Remember: your bicycle must be able to carry your weight as well as the weight of all your equipment.

Instructions on traffic safety
A reminder on traffic safety is given before every bicycle march.

When you take part in a bicycle march, remember at least the following things:

- A bicycle march is carried out by riding in linear formation on the right side of the road, by the side of the road or on a bike path.
- Every detachment (for e.g. a company as part of a battalion, a separate platoon) must have a march trail party leader. This leader makes sure that the instructions issued to the march trail party leader in the bicycle march order are followed.
- When on a break, the marching detachment must get off the carriageway.
- If the detachment must turn left, it must change lanes and align itself on the right side of the centre line by sections according to the hand signals given by the section commander and repeated by others in the section.

When riding, be careful, do not ride in and out of the line or ride side-by-side with someone, and under no circumstances start playing around while riding. Be aware that passing vehicles may create a strong air current that can throw your bike off balance. Keep your hands on the handlebars and keep your mittens on.

During the bicycle march

Relay all signals to those coming after you in the marching file. However, do not rely entirely on these signals. Follow what is happening around you. When you are at a crossing, make sure that those coming behind you see where you are turning.

During the actual march, ride at a consistent speed rather than slacking off and then having to pedal really hard to catch up, as this uses up your energy fast. To avoid great differences in speed, distances can be kept shorter when going uphill and then lengthened when going downhill. Don't suddenly speed up and then break unnecessarily. Instead adjust your speed calmly.

The rule is that if you need to stand up when pedalling uphill, you get off your bike and walk the bike up the hill. When a section has walked their bikes up a hill, the section's first member will only start pedalling once everybody can start pedalling at the same time.

If your bike breaks down during a march, follow the instructions you are given. Normally a maintenance vehicle with extra bikes will follow a bicycle march, located at the tail end of the march. Move to the side of the road and wait for this vehicle, take an extra bike and join the tail end of the bicycle march. Join your own section during the next break.

Halts during a bicycle march

Normally a bicycle march will consist of 50 minutes of riding followed by a 10-minute halt. During the halt the gaps between the sections are narrowed down. Each section is to go to the side of the road. Bikes are to be taken under air cover into the forest or off the road and put to face the road. During the halt rest your legs, stretch your body and drink fluids.

When the halt is over, the section is to walk its bikes to the road. Start pedalling only after everybody is ready to start pedalling.

After a bicycle march

After a march, take your equipment off the bike and clean the bike. Have a piece of cloth ready for this purpose. Before you take your bike back into storage, oil its parts, tighten any screws that may have become loose and make other similar small fixes your bike might need. Check that the tyres have enough air in them. If your bike is broken, take it to be fixed.

Once you have taken care of your bike, service your section's equipment as well as your own weapon and equipment. Finally, have a shower, stretch and have a meal.

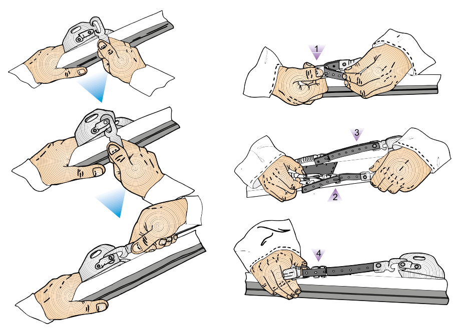
Instructions for a ski march

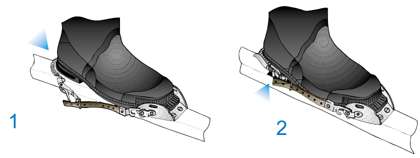
The same instructions apply to a ski march as to a march on foot. During a ski march, distances between soldiers will vary depending on the terrain. You leave more distance between you and the person in front of you as you approach a downhill. That way, you avoid skiing into the person in front of you as you go downhill. Check and adjust your skiing equipment before a march. Wax your skis according to weather conditions, then test them before the march. During the march, check your teammate's face (esp. nose, cheek bones, jaw and ear lobes) regularly so that you can notice the first signs of frost bite in time so that first aid can be administered immediately. When you go on a break, ski to the side of the track. This leaves the track open for leaders and messengers.

Using a sled (ahkio in Finnish)

When you are loading a sled that is going to be drawn by a person, pack the heavy stuff at the bottom and towards the back, thus making it slightly "back heavy." The sled is to be packed according to the requirements set by the task

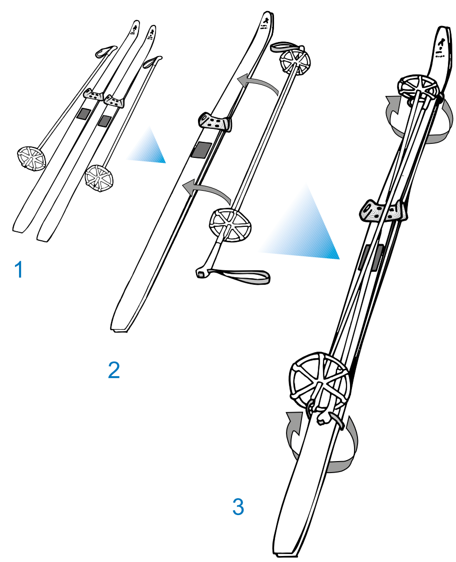
Fastening and adjusting of ski bindings

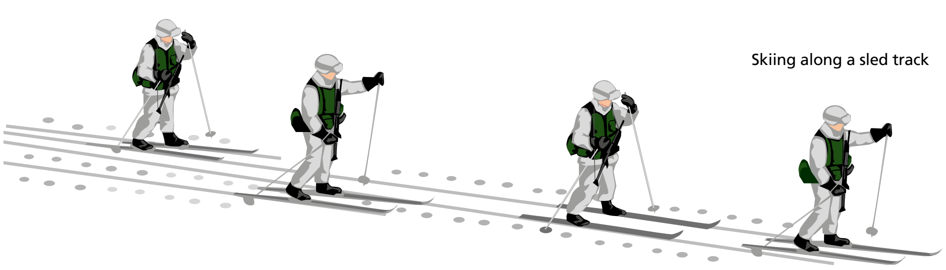




– Skis are chosen according to the height and weight of the skier.
– Adjust the bindings to a suitable length.
– Make a note of the number on your skis.
– You are not allowed to make any other markings on the skis.
– During a motorised march, keep the bindings in your webbing, not on your skis.
– Clean the bottom of your skis during breaks and at the end of the march to prevent them from freezing.
– Instructions on how to service and wax your skis can be found at the end of section 6.2.

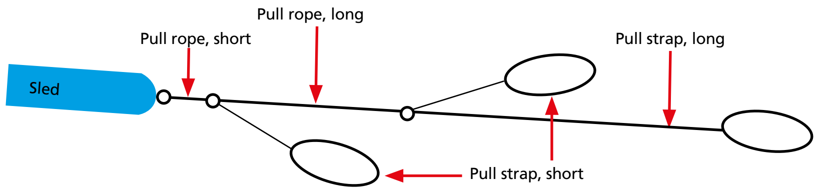
Example of a ski transport package



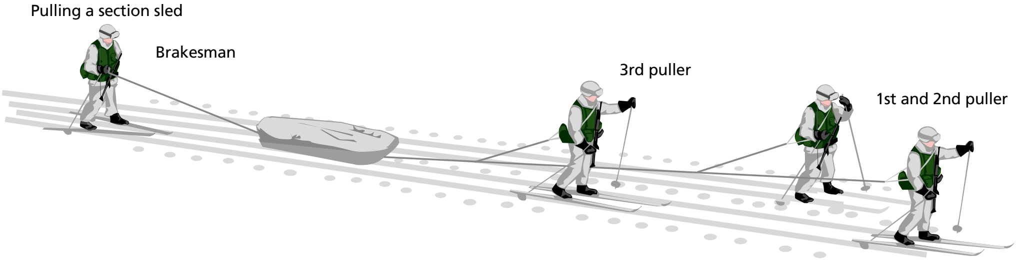


Skiing along a sled track

A section sled's five-part pulling system



Pulling a section sled



that the unit has been ordered. For a combat mission, pack ammunition, rocket launchers and mines. To keep casualties warm, pack a sleeping mat and sleeping bag. When the task is mobilisation for defence, you can pack bivouac and engineering equipment in the sled. A sled should always have one set of extra skis per section. The loaded sled is to be covered with a plastic cover, the bottom of a tent or with some other material that is suitable as a cover and then tied. Three soldiers should be able to draw the sled without effort so that they do not fall behind from the rest of the group. If they do, the sled is too heavy. If the terrain or weather conditions are difficult, part of the cargo should be distributed for other soldiers to carry. Sleds can also be moved using a snowmobile.

A sled is pulled by 1-3 soldiers depending on the terrain, the weather and the weight of the sled. When there are ski tracks readily available, the sled is pulled at the front of the march, as this sets a suitable pace for the march. Those pulling the sled are to have their guns at their chests, on top of the pulling strap. One soldier takes the role of brakesman. His job is to slow down the speed of the sled while going downhill and when going up a steep hill he is to pull the sled with his own strap or push the sled from behind with his ski pole. For breaking purposes, a rope is attached to the back of the sled. The strap can be left to trail behind when the terrain is flat or when going uphill. When going downhill, the brakesman will grab hold of the rope and slow down the sled by snowploughing.

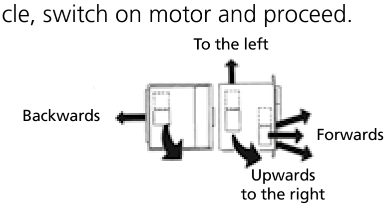
After a ski march

When the march has been completed, section equipment is serviced first. Then service your own weapon and equipment. Finally, have a shower, stretch and have a meal.

After the march, assess your physical capability. Would you be able to complete your next battle mission?

Examples of how sectors of observation are determined in combat vehicles during a motorised march

The observer's task is to relay signals to the vehicles that are in front and behind. He must also inform the vehicle leader of any signals or observations. The marching detachment's leader will order the following using confirmed arm and light signals: drive to air cover, mount into vehicle, switch on motor and proceed.



Depending on the all-terrain carrier, air observation is from the hatch of either the front or back unit.



Instructions for traffic control

A traffic controller must be equipped according to road safety regulations. A traffic controller must have the following:

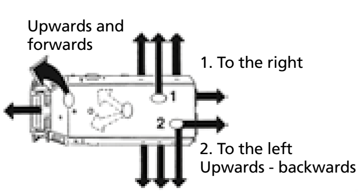
- high-visibility clothing (e.g. a high-visibility vest that conforms to standards)
- a small traffic sign saying "no vehicles allowed" and
- at night time a sufficiently powerful hand-held red light.

When military training takes place on roads open to the general public, the Defence Forces must agree on traffic arrangements with the Police and road authorities first.

The traffic controller's task is to guide the units and vehicles in question as to the ordered direction or area.

The traffic controller must know the units' **identification numbers and countersigns** as well as the **hand and light signals** used to direct vehicles. This is because other units might be operating in the same area. The traffic controller must not lead these units astray.

The section leader or platoon commander will order which units the traffic controller is to guide and where, what the vehicles' identification numbers and letters are, the number of vehicles concerned as well as the battle code (tunnussana) and what the controller's task is after he has guided all vehicles.





Traffic control during a march.



Hand signals "attention" and "forward to the left.



The traffic controller may also be given the task of putting up and removing signs. The person who gave the task to the traffic controller will fetch the traffic controller from his assigned position. The march trail party leader may upon order take the traffic controller into his vehicle. The traffic controller always reports the guided units and the number of vehicles that he guided to the person who gave him the task.

Keep your weapon on the strap on your chest so that you can show hand signals and be able to open fire quickly when required.

Choose **a cover** where you have air cover and can remain in a state of readiness. When a vehicle that needs to be guided approaches an intersection, the traffic controller moves to the **pre-determined place** for guiding vehicles.

The units to be guided are identified from the numbers and letter on the front and side of the vehicle.

When a vehicle arrives in the dark, the attention of the vehicle leader and driver are drawn by using the attention hand signal or by showing a green light. Once the traffic controller has identified the units, he guides the vehicles in

the ordered direction using hand signals. If required, the vehicle is stopped and identified.

Traffic safety as part of march training

Every soldier must be familiar with these traffic instructions and know what they require.

Motor march

Preparations

When preparing for a motor march, the following things have to be taken into consideration:

- transition schedules must allow for vehicle-specific speed limits and speed limits on roads. Also road, driving and weather conditions must be taken into account.
- rules on drivers' hours and mandatory breaks must be followed
- motor marches should avoid crossing through rather densely built-up areas
- transport equipment support measures must be planned so that vehicles that have broken down can be quickly removed
- personnel must be issued with a marching order before the march

Marking a convoy

Yellow warning signs with retroreflective sheeting and black letters must be placed on the front of the first vehicle and on the back of the last vehicle of the convoy.

The warning signs must be at least 0.30 x 0.80 metres in size and the letters must be ca. 8 cm tall. The signs must read
MARSSIRIVISTÖ ____ AJONEUVOA

When the structure of the vehicle is such that you cannot attach a sign of that size to it, the sign may be smaller.

Warning signs are to be used with convoys that have five or more vehicles or articulated vehicles (not incl. motorcycles or scooters).

What personnel need to know before a march

Before embarking on a march, personnel need to be told the following things:

- how to behave in a vehicle
- the use of personal safety equipment
- procedure during halts and when personnel are dismounted from vehicles
- how to proceed when a vehicle stops in the middle of the road because it breaks down or is damaged (Road Traffic Act 267/1981, §61)
- procedure at the scene of an accident

Every vehicle carrying personnel must be assigned a vehicle leader who supervises that the instructions contained in the marching order are followed.

How to carry out the march

The distances between the vehicles must be determined by the condition of the roads and traffic volumes. There must always be enough space between two vehicles so that overtaking vehicles have room to safely come in between these two vehicles. On main roads the distance must be at least 200 metres.

The use of terrain lighting (military lights, infrared lights, image intensifiers) is only allowed off road in separately ordered areas and always requires special care. The area must be closed for other traffic or traffic control be arranged to warn about vehicles using night-vision equipment.

Halts and dismounting convoys during a motor march

Halt locations must be recced before a motor march, and they should primarily be by secondary roads or in parking areas. If a vehicle cannot be moved off the actual road, necessary precautions to warn other traffic must be taken.

Drivers must go to the right side of the road for halts. You must mount and dismount a vehicle either from the shoulder of the road or from the back of the vehicle.

Fastening your rucksack to your bike



If in winter passengers cannot be walked while stationed by the side of the road, proceed in the following manner:

- during daylight, vehicles are stopped within a certain predetermined distance of each other. Passengers dismount by the shoulder of the road that is on the right side, after which they get into a line in twos at the front of the vehicle. To warm up, a brisk march is undertaken at the front of the vehicle.
- in addition to the above, if it is dark, everyone must wear a reflector and there must be a white light at the front of the marching detachment.
- a vehicle must follow the detachment in close proximity, but within the appropriate safety distance.

Bicycle march

Military bicycle equipment and the equipment needed by cyclists in bicycle marches
According to the Occupational Safety and Health Act's §6, a bicycle helmet can be replaced by a soldier's helmet while cycling during military training. In any other situations during military service, you must wear a bicycle helmet while riding a bike.

When riding in file, the last cyclist must wear an approved high-visibility reflective vest.

When riding in the dark or at dusk or when there is poor visibility, each bike must have a sufficiently powerful white light at the front. All those riding bicycles must wear a reflector on their left sleeve.

When riding in file, the previously mentioned light must be attached to the front of the first and last bicycle as well as on bicycles in the middle so that bicycles with two lights have a maximum of three bikes without lights between them.

Preparations for a bicycle march and bicycle safety checks
Marches that are part of the training programme should take place along roads with light traffic and at off-peak times. Before the bicycle march sets off, check your

- tyres
- reflectors
- lights
- and the weight of your load.

How to carry out the march
When you take part in a bicycle march, remember at least the following things:

- A bicycle march is carried out by riding in linear formation on the right side of the road, by the side of the road or on a bike path.
- Every detachment (e.g. a company as part of a battalion, a separate platoon) must have a march trail party leader. This leader makes sure that the instructions issued to the march trail party leader in the bicycle march order are followed.
- during a halt, the marching detachment must get off the carriageway.
- If the detachment must turn left, it must change lanes and align itself on the right side of the centre line by sections according to the hand signals given by the section commander and repeated by others in the section.

Foot and ski marches and skijoring

Foot march
The following have to be taken into consideration when planning, preparing and carrying out a foot march:

- as a general rule, marches must be carried out in terrain or along foot paths, pavements or along remote or lightly trafficked roads. If the march takes place on a road that does not have a pavement, soldiers must march along the side of the road.
- when proceeding along a public road, the marching detachment must advance on



the side of the road or on the right side of the road when seen from the direction they are marching towards. Soldiers are to march in single or double file (single file when along a pavement). This does not, however, apply to parades or when marching along closed roads or within the garrison.
- when the detachment must cross a road, it must be done in groups diagonally in places where there is sufficient visibility in both directions.
- when marching in the dark or at dusk or when there is poor visibility, every marching detachment must have a white light at the front and a red light at the back. In addition, everyone must have a clearly visible reflector attached to their left sleeve.

A ski march and skijoring
- on a public road, a detachment must proceed along the right side of the road and a person skiing on his own must ski on the left side of the road. A road must always be crossed at a right angle.
- when a skiing detachment crosses a road, there must be sufficient visibility in both directions and a watch must be placed where the detachment is crossing the road to ensure safety. It is the watch's duty to stop the skiing detachment when a vehicle needs to pass.
- when circumstances require that traffic is stopped or warned, only the traffic watches can do so and according to the instructions they have been given.
- skijoring is only allowed when the road is closed from all other traffic and when there is no grit on the snow. The motorised vehicle (excl. snowmobiles) that does the skijoring must have one person as the lookout; he must follow those being towed at all times so that he can immediately let the driver know if the vehicle needs to be stopped.
- the maximum speed limit of a towing vehicle is 20 km/h. The maximum number of people per vehicle who are allowed to be towed while on skis is 20. The speed and number of people being towed must be lower if road, weather or terrain conditions so require. The actual towing equipment must not be attached to a person that is being towed.

More detailed instruction on the use of lights and reflectors in the dark and when visibility is either limited or bad is given in instructions and regulations concerning traffic safety.

5.8 Bivouacking

A section will first sleep in fighting positions or if the weather is bad and conditions allow, in a tent. As the fortifications of the fighting position progress, soldiers sleep in bivouac fighting positions, a dugout or building.

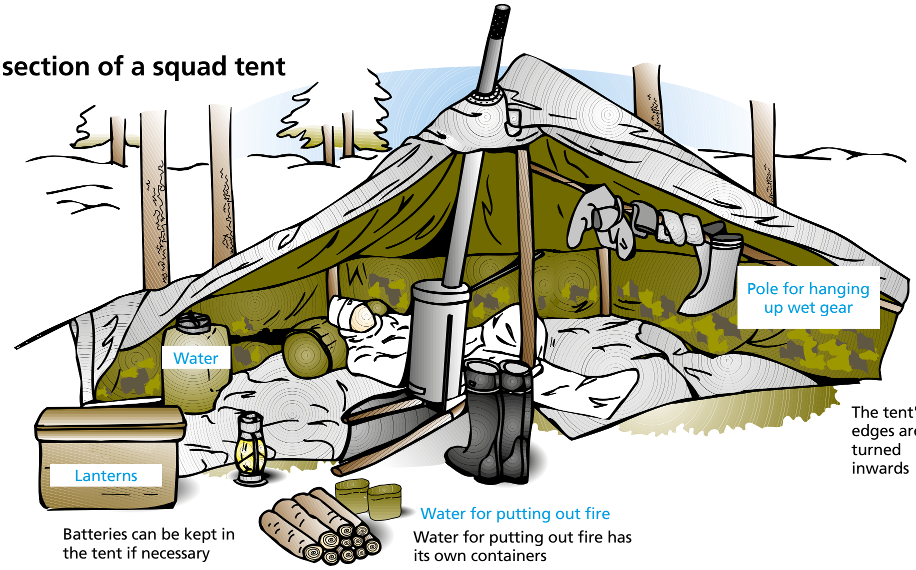
When sleeping in a fighting position or in a fireteam fighting position, place pine needles and a sleeping mat at the bottom of the fighting position or the covered position. The opening of the position can be covered with a rain poncho.

Sleeping in fighting positions is always temporary, as alerting the section is then always slow and it is difficult to maintain fighting capability.

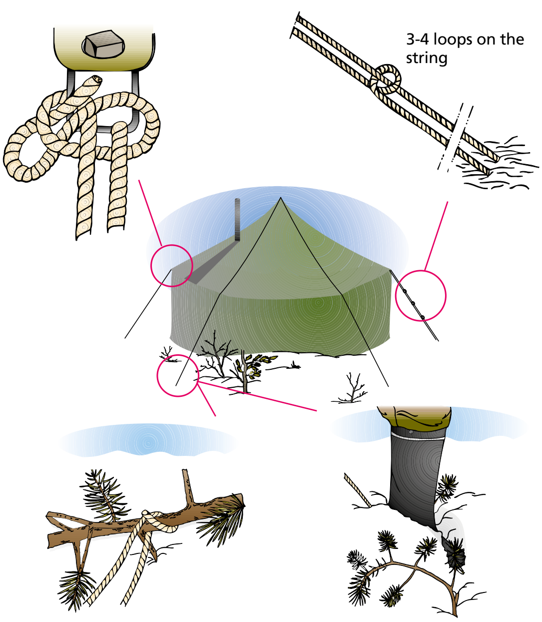
The section leader orders the location of the section tent. The tent is to be placed **in a depression so that it has air cover and that it has cover from direct and indirect enemy fire.** The tent must be pitched at least 50 metres away from the section's vehicles and the other tents. The tent's opening must not face in the direction from which the enemy is likely to come.

The cover provided by the tent can be improved by setting up the tent in a tent fighting position. The bottom of the tent can be covered with a ground cloth or, if the arrangement is more permanent, with a base-board. The tent's camouflage should be kept clearly separate

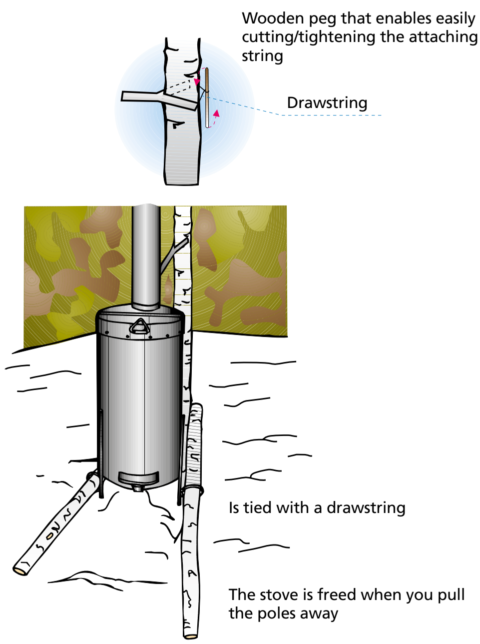
Cross section of a squad tent



Fastening tent lines in winter



Fastening of a stove to the central pole





from the actual tent cloth so as to reduce heat radiation, as heat radiation can be picked up by the enemy.

The tent's location should be chosen so that the tent's edges are higher than the middle part and so that the door opening is lower than the opposite wall. This means people do not have to sleep with their head slanting downwards. It also allows the heat to spread more evenly.

The sleeping tent can be pitched up in the following manner:

- one fireteam clears the ground of trees and branches and in winter of snow and burns the stove's fogging oil
- the third fireteam takes the pine needles that were cleared from the ground when preparing a place for a fire and spread these on the bottom of tent
- the section's second leading fireteam fetch the tent along with necessary equipment and camouflage net from the transport vehicle
- the second and third fireteam each pass a corner tent pole into every second corner and spread the flat tent into a square
- the section's deputy leader's partner hammers the pegs into the ground; the second and third fireteams each set their corner poles in an upright position and attach their tent ropes to a peg
- the second and third fireteams then move clockwise and pass a corner pole into the tent's next corner. When this is done, everybody sets a corner pole in an upright position; the tent is then first tightened into a square and then into an eight-angled shape; the tent ropes are tied using a tent knot onto the pegs that were hammered into the ground by the section's deputy leader's partner
- the section's deputy leader places the tent's central pole in the middle of the tent and those attaching the tent knots insulate the outskirts of the tent by pressing the edges of the tent to the ground
- the first fireteam takes a lantern into the tent and sets up the stove
- the second fireteam camouflages the tent with a camouflage net, paper and organic material found in the surroundings and
- the third fireteam set the poles that keep the stove in place and the clothes lines for drying wet gear and spread a tent cloth on the bottom of the tent.

When the tent has been set up, the section leader will have his teams rehearsing manning fighting positions. The leader will order the setting up of the warning triggers as well as the chopping of wood and the carrying of water into the tent for fire extinguishing purposes.

The colder it is, the smaller the pieces of chopped wood need to be. This gives the wood more surface area, which means it releases its heat energy faster. Water for putting out a fire must be kept in a separate container.

The section leader may order that skis are kept, for instance, hidden by the side of the track leading to the fighting position. **A ski dugout** is prepared for skis. Remove snow and ice from your skis. Ski poles are laid in between your skis. Skis are set on top of sticks in the ski fighting position, bases facing downwards. Bindings are left on the skis.

A soldier must always have his weapon with him. When you are in the tent, keep it behind your head by the wall of the tent so that the stove will not heat it up. Webbings and rucksacks are kept in the tent or camouflaged and kept, for instance, by the track leading to fighting positions.

Equipment must be placed in the tent as shown:

- weapons are placed behind heads within arms' reach
- chopped wood is piled next to the tent opening on the left
- the vessel with fire extinguishing water is placed next to the tent opening on the right
- the lantern is placed on the opposite side of the stove on the clothes' drying pole
- the stove is raised above the ground, as that will allow heat to radiate best throughout the tent

Necessary section equipment is placed outside by the opening of the tent and under a camouflage net. Equipment that is not needed is placed in transport boxes in the section's vehicles. Equipment is to be checked while it is still daylight.

The section leader writes the sentry duty shift list and assigns shifts.

When sleeping in a tent, keep the following in mind:

- when you leave the tent, take your weapon with you
- handle your weapon in the tent so that it does not unintentionally discharge
- keep your rucksack packed and only remove the things you actually need
- enough wood must be chopped to last through the night because chopping sounds would allow the enemy to detect the section
- add wood to the fire in even amounts, this keeps the temperature even. Place wood in the stove silently; small pieces of birch wood give off the most heat
- wet gear is to be dried on the drying pole
- shoes are placed with the leg of the boot facing upwards, wet shoes are hung up to dry
- do not place any gear close to the stove, as it might start burning
- the soldier on close sentry duty makes sure there is drink and dry food ready for the soldier who returns from outside sentry duty. It is good manners to have hot water ready and waiting for the one who has been on sentry duty outside
- rubbish is burnt in the stove and other waste is placed in the waste bin
- if you need to exit the tent quickly, everyone exits from where they are and under the tent's edges
- when you need to go to the toilet, use the latrine, which will be at least 50 metres from the tent
- do not expose your section by using lights or being noisy.

The tent and other bivouac arrangements are taken down using the same division of tasks as when setting the camp up. All bivouac gear is checked and then loaded into vehicles. The stove's pipe parts are swept by, for instance, pulling a spruce tree's branch through them. When burnt, spruce produces a lot of soot. A stove that has been heated using spruce will produce less heat within a day than if other wood were used. Do not leave any rubbish in the fighting position or bivouac area. The latrine must be covered up. Chopped wood is either loaded in the vehicle to be used at the following bivouac site or they are piled and left, for example, under a tree. In winter, the tent placement is covered with snow to make it harder to detect that the section has camped there.

When you are back at the barracks, all bivouac gear is checked and serviced. Tents and camouflage nets are dried and packed carefully. Lanterns are cleaned and maintained, fuel and spare parts are restocked. Stoves are cleaned and oiled. Tools are sharpened and oiled. Broken equipment is replaced with undamaged equipment before the next exercise.

Mission

- Think of actions you can take to prevent a weapon from accidentally discharging when you are on a field exercise and sleeping in a tent.
- Go through how you should camouflage the sides of a tent.

Something to think about

- What are a soldier's basic combat skills?
- How do you take cover from the enemy's fire and aim?
- How do you make sure you are able to open fire quickly with your assault rifle?
- How do you maintain your and your section's situational awareness?
- How do you operate best in a fireteam?
- What are the requirements of a good fighting position and how do you go about achieving one?
- How do you prepare for a transition on foot that will take hours?
- How do you prepare for night combat?
- What should you do to prevent physical and heat exhaustion?
- What is the basic structure of a message?
- What are the procedures during a march halt?
- Why are you not allowed to use lights while in a fighting position or manning your sentry position?

5.9 An infantry section's equipment, its use and servicing

Examples of equipment that are used by everyone in a section:

- bucksaw 1
- general purpose axe 1
- grit shovel 3
- snow shovel 1
- iron bar 1
- pickaxe 2
- camouflage net 1
- prod 1
- scissors for barbed wire 1
- marking equipment for mines 1
- tent M/60 1
- stove M/60 1
- lantern 1
- water container 1
- sled 1

A soldier must know how to use and service all of the material used by a section.

A soldier must be able to:

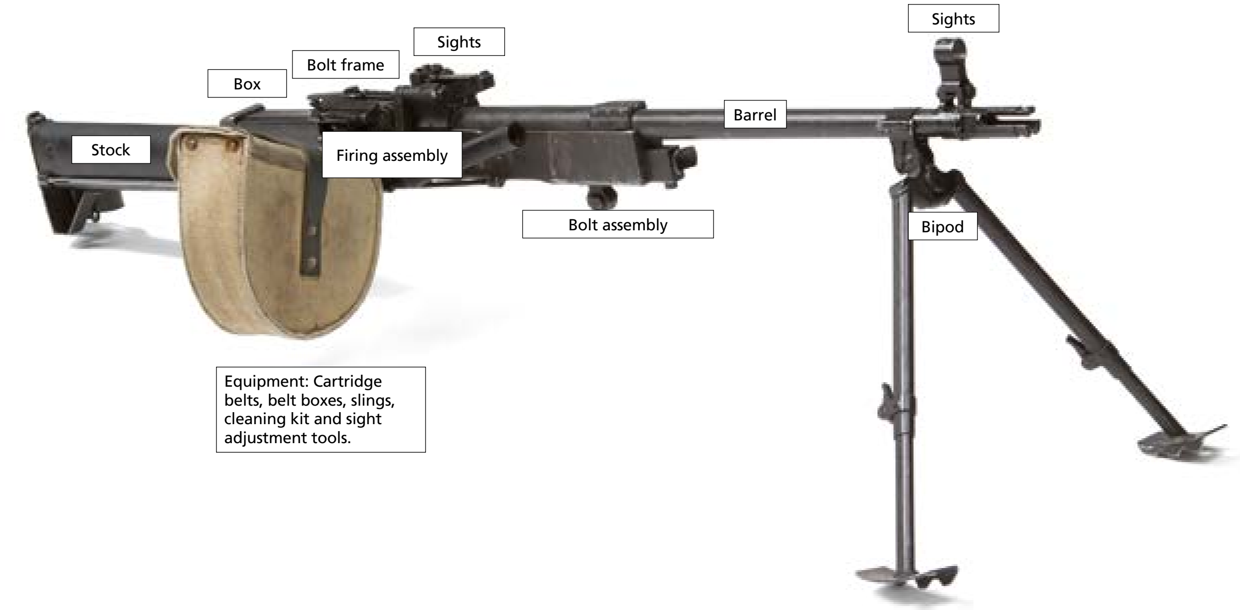
- use the bucksaw to fell trees and saw wood for the stove
- change the bucksaw's blade and use the blade's cover (e.g. a sliced hose)
- use the axe for trimming branches, for carving, and for chopping wood and he must be able to use the cover of the blade
- replace the broken handle of an axe or pickaxe with a new one
- use an iron bar to make a hole in frozen ground and as leverage
- carve with a sheath knife and whittle feather sticks on chopped wood when making a fire
- set up, pull down and pack a section tent
- camouflage a tent and vehicle using a camouflage net
- complete the camouflage by using summer and winter camouflage paper
- assemble, set alight and warm up a stove as well as dismantle and clean it
- fuel a lantern, clean a lantern, change its corewick and glass
- load a sled and a snow mobile's sledge
- tie the knots used to set up a tent and pack up a sled
- replace the broken tip of a ski with a reserve tip
- start a fire

Use of section equipment

The section leader makes a list of the material that is intended for the entire section. One particular soldier may be assigned responsibility for a particular piece of section equipment. If you have been assigned such a responsibility, you are in charge of this equipment's storage and servicing and you must make sure that it is included among all the other equipment that the section must take with it. Equipment is packed in transport boxes to make handling easier. Boxes also protect material from dirt, dust, water and snow. Transport boxes are numbered and a list can be included on the inside cover of such a box telling what equipment is in the box. Section equipment must always be checked before nightfall, when readiness has been raised or before departure. Equipment is serviced after a task and exercise.

Section equipment is serviced as follows:

- equipment is checked against the equipment catalogue
- ammunition is collected and given to the section leader
- the saw, general purpose axe, grit shovel, iron bar, pickaxe and scissors for barbed wire are dried off with a cloth and oiled lightly
- the tent and camouflage net are cleared of possible debris, any ropes used to tie the tent down that have snapped should be replaced and any remaining knots opened. Once the tent and camouflage net have dried, they must be rolled up and tied
- the lantern and its box are cleaned and dried and the lamp oil container is filled up
- the stove and its pipes are cleaned
- the water container is rinsed and dried
- the sled is cleaned, broken pull ropes are fixed and any remaining knots in the ropes must be opened
- transport boxes are cleaned and dried
- any equipment that is missing or broken is noted down and reported to the section leader
- rubbish is collected into rubbish bags and taken to a bin
- material is loaded on a vehicle, placed under cover or put into storage for the next task or exercise.



5.10 Section weapons, mines, hand grenades and smoke grenades

Light machine gun

The machine gun is the most effective firing weapon a section has. As a stable fully automatic weapon, the machine gun fires a greater distance more effectively than an assault rifle. The section leader will order tasks to the machine gunner to support the section in combat. A machine gun is used to cover a section's entire field of fire, to reach targets far away and as a fire support weapon. A machine gunner must be able to aim, use and handle a machine gun in all forms of combat and he must be able to function as part of a fire support unit. The gunner's team-mate assists in carrying the ammunition belt. The team-mate also is on the lookout and will notify the gunner of any targets and of whether a target has been reached.

There are two types of machine gun currently being used: the Finnish-manufactured 7.62 machine gun 62 and the Russian-manufactured 7.62 machine gun PKM. The most important difference between the two models is the long cartridge used by the PKM machine gun. This gives the weapon the advantage of having an effective firing range of 600 metres, the longest possible firing range being 1,000 metres. The PKM machine gun's rate of fire is less than that of a 7.62 light machine gun 62.

The specifications of a 7,62 machine gun 62:

- it is an automatic weapon (charges, discharges and removes the cartridge case)
- can only fire multiple rounds automatically, the most effective way to fire being short bursts
- the weapon is belt-fed; the belt has space for 100 rounds; a full belt weighs 2.4 kg
- the firing capacity is 6 full belts, meaning 600 rounds.
- the cartridge is a 7.62 short cartridge; the same as in an assault rifle
- theoretical rate of fire 1,000 rounds per minute and with belt changes this drops to 400-500 rounds.
- weight without the box 8.5 kg.



The specifications of a 7.62 machine gun PKM:

- it is an automatic weapon (charges, discharges and removes the cartridge case)
- the weapon is belt-fed; a box with 100 cartridges and a box with 200 cartridges
- the cartridge is a 7.62 x 53R long cartridge; same as in an assault rifle
- theoretical rate of fire 700 rounds per minute and with belt changes ca. 250 rounds per minute
- weight without the cartridge box 7.8 kg.

Light anti-tank weapon 66 KES 88

A soldier must be able to handle and use a light anti-tank weapon so that he can assess the speed of the target and the shooting distance. He must be able to reach a target that is standing still in daylight in 90% of cases and in the dark in 75% of cases. When the target moves, he must be able to hit it in 75% of cases in daylight and in 65% of cases in the dark. A soldier must be able to get the light anti-tank weapon in shooting order in 5 seconds and transport order in 15 seconds.

Light anti-tank weapons are used to destroy infantry fighting vehicles and armoured personnel carriers. Main battle tanks, on the other hand, are primarily destroyed using heavy anti-tank weapons, armour-piercing infantry light arm systems and anti-tank missiles. The chances of a light anti-tank weapon destroying a main battle tank when the distance is known is 8%.

When firing with an anti-tank weapon, chose a firing position that is in a flanking position. The distance between the firing position and the desired target must be measured when developing defence readiness. Firing positions are usually selected so that the distance to the most important target is less than half of the effective firing range, which in this case is 200 metres. Tanks must be stopped in a killing zone with barriers, as this makes them easier targets. One-shot anti-tank weapons are operated by fireteams. One soldier fires with the one-shot anti-tank weapon(s) while the other aims the shot. A firer will have 2-3 anti-tank weapons.

The main parts and specifications of an anti-tank weapon

- Calibre 66 mm
- Weight 3.27 kg
- Length when collapsed 771 mm
- Length when extended and armed 981 mm
- Effective/maximum firing range 200 m/350 m
- Muzzle velocity 198 m/s
- Armour-piercing (impact at 90 degrees) ca. 300 mm
- Flight time (to 250 m) 1.4 s



AN EXAMPLE OF HOW AN ANTI-TANK FIRETEAM OPERATES

Senior	Junior
• Commands; "ASEMAAN" (TO YOUR POSITION) (when needed, points out firing position to junior)	• Repeats: "ASEMAAN"
• Goes to firing position.	• Goes to firing position.
• Commands: "AMPUMAKUNTOON, 150" ("READY TO FIRE, 150") (distance at which will fire).	• Repeats: "AMPUMAKUNTOON"
• Gets anti-tank weapon into firing order, sets distance at 150 m.	• Gets anti-tank weapon into firing order, sets distance at 150 m.
• Fires immediately after has heard junior's notification.	• Notifies: "150!"
• Notifies junior if misfired or made other mistake that led to target not being reached ("OMA VIRHE" = "OWN MISTAKE" or something similar).	• Observes the shot that the senior shot, corrects the distance settings if the shot went over/below.
• Observes shot made by junior.	• Fires.

Before firing

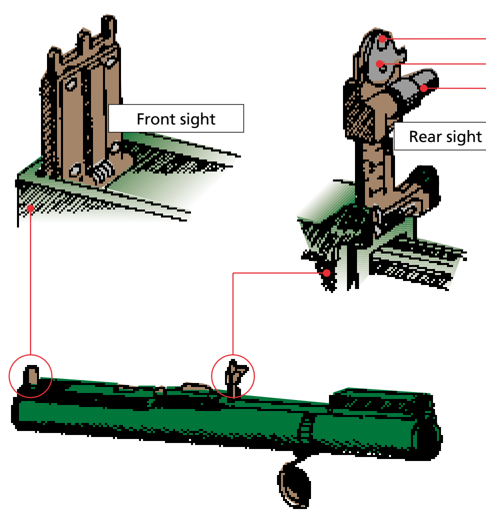
- Remove the pull pin of the rear cover. Keep the carry strap.
- Turn down the rear cover, which also functions as a shoulder pad. The carry strap and front cover will come off at the same time.
- Pull the inner tube into extended position with a sharp hand movement so that the tube locks.
- (LAWs manufactured for exercise purposes that are equipped with an inside tube are prepared for use by extending the tube about 15 cm first and only then pulling sharply. This way, the mechanism will last longer.)
- Set the distance for the rear sight by pointing it towards the most important point in the killing zone.
- Make sure that the spring that reacts to the temperature allows the front sight bead to move (new model) or then make sure that the rear sight's temperature setting is set right (old model).
- Be prepared to protect your hearing.



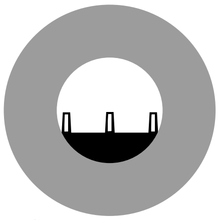


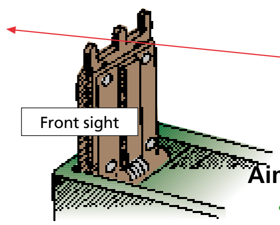


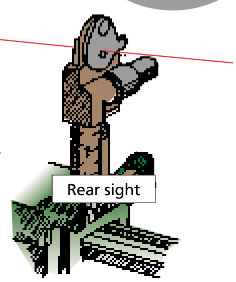




Rocket launchers have a flight path that curves heavily. This means the distance to the target must be correct. Distances to different points within the killing zone are always measured when possible and marked on a firing chart. Distances can be measured by steps or by using a survey tape. The fire-control section can help by measuring the distances with their laser rangefinder.







Aiming

- Select a target and protect your hearing.
- Estimate at what distance the target will be when you fire. Set this estimate in your rear sight.
- Aim through the hole in the rear sight.
- Have the top-end of the front sight's finder show in the middle of the hole.

» *You can use the middle finder to aim at the first third of a tank up to a distance of 150 m.*



Aiming at a stationary target, 100 m stationary.



Aiming at a stationary target, 200 m from the front.



When you are aiming at a moving tank, have the first third of the tank aligned with the middle finder in your sight.



Firing

- Make sure that your hearing is protected (with earplugs and active hearing protectors).
- Raise the weapon to your shoulder while holding the tube and stand.
- Make sure that no-one is standing behind in the danger area.
- Remove the trigger safety.
- Aim through the rear sight.
- Set the firing arm so that your thumb is under the tube and the rest of your fingers are on the trigger. Set the supporting arm so that when firing on the support, your fingers are on top of the stand. Press the weapon against the stand. Wear a leather glove or mitten on the hand that supports the gun. When kneeling while firing, the position is the same as when firing with an assault rifle; the supporting hand is completely under the tube and the tube lies against the palm of your hand.
- Launch the rocket by pressing the trigger down.

People with small hands can keep the firing arm so that the thumb is behind the trigger stand.

When aiming at a moving target, it is usually best to aim at a certain point and wait (lying in wait method). The launch will then be stable and tree trunks and other obstacles in the line of fire are easily avoided.

Packing a LAW for transport

- Push the trigger safety into the SAFETY position.
- Push the plate that keeps the tubes in place to unlock them and push the inner tube halfway in.
- Turn both sights down and push one tube into the other completely. The sights will become hidden by their covers at the same time.
- Set the front cover in its place and attach the carry strap to the holder on the rear cover as shown in the picture.
- Shut the rear cover. Set the transport pin in its place.

Something to think about

Why is it better to target a stationary tank when firing with a light anti-tank weapon?











Hand grenades and other grenades

A hand grenade is intended for close combat and against such targets that cannot at that moment be destroyed using direct-fire weapons. In Finland, fragmentation grenades and hand grenades are used.

Smoke grenades are used to form a protective smoke screen and for giving signals.

A soldier must be able to throw a hand grenade at least 30 metres while standing up. A soldier must be able to hit a target at 20 metres measuring 2 metres in diameter.

A fragmentation grenade has a hard body that will fragment upon impact. Its effective range is a radius of around 15 metres from the point of impact. Bigger, random fragments can harm at an even greater distance.

How a hand grenade works

When the safety pin has been pulled out and the hand grenade has been thrown at the target:

- The lever will open when you let go of the hand grenade
- The firing pin hits the primer
- The detonator's timed fuse will ignite, the burning time being 2.5 seconds.
- Explosive charge (TNT)
- The notched body of the grenade fragments.



Fragmentation grenade



Different varieties of hand grenades and other grenades

Concussion grenade (green)
Concussion grenades are used to destroy a concentration of weapons e.g. when taking over a trench or in enclosed spaces, such as in dug-outs, bunkers and buildings. The grenade hardly fragments, as it consists mostly of an explosive charge.



Smoke grenade (grey)
Smoke grenades are used to prevent the enemy from seeing friendly forces and to protect the actions of friendly forces. Smoke grenades can also be used to prevent tanks from detecting friendly forces.



Smoke signalling grenade
(red, purple, yellow, green)
Smoke signalling grenades are used for signaling and commanding, such as e.g. indicating the leading edge of a unit's formation to a support fire weapon or support detachment.



Practice grenade (yellow and blue)
Practice grenades are used in military training.





Getting a grenade ready before you throw it (right-handed thrower)

Joining a lever fuse and body

- The lever rests on the palm of your hand.
- The body is in between your thumb and your fingers.



- The hand grenade's body is twisted on to the fuse. Twist the body, not the fuse.
- Join the body and the fuse in front of your body.
- Look carefully to see that the twist goes to the right.
- The lever part is in the hand you throw with while the other hand twists and attaches the body to the lever.



Throwing grip

- The thrower takes the grenade into his throwing hand.
- The lever is against the palm of your hand with your fingers firmly but not too tightly wrapped around the grenade.

THE WRONG WAY TO HOLD A GRENADE

The lever must not be against your fingers. Don't hold your hand too high, as removing the safety pin is then harder and the grenade could slip from your hand.



- The safety pin's pull ring is removed from the catch lever by pressing with your thumb and lifting the pull ring with your index and middle fingers.



- the thrower puts the index finger of his hand that is free into the pull ring.



- the safety pin is turned counter clockwise until the bend in the upper branch jumps off from under the safety pin's lower branch.



- twist the pull ring backwards before you pull the safety pin off.



- the safety pin is pulled from fuse with a straight pull after which the hand gre-nade is ready to be thrown.



- the pull ring remains on the index finger of the hand that is free.

Never attach a detonator to the fuse of a practice grenade or smoke grenade



Getting a grenade ready before you throw it (left-handed thrower)

Joining a lever fuse and body

- The lever rests on the palm of your hand.
- The body is in between your thumb and your fingers.



- The hand grenade's body is twisted on to the fuse. Twist the body, not the fuse.
- Join the body and the fuse in front of your body. Look carefully to see that the twist goes to the right.



Throwing grip

- The thrower takes the grenade into his throwing hand.
- The lever is against the palm of your hand with your fingers firmly but not too tightly wrapped around the grenade.

THE WRONG WAY TO HOLD A GRENADE

The lever must not be against your fingers. Don't hold your hand too high, as removing the safety pin is then harder and the grenade could slip from your hand.



- The lever part is in the hand you throw with while the other hand removes the safety pin's pull ring from the catch lever by pressing with your thumb and lifting the pull ring with your index and middle fingers.



- A left-handed thrower turns the hand he throws with to the right until the lever fuse points to the right and pulling the pull ring free feels natural. The thrower puts the index finger of his hand that is free into the pull ring.



- The safety pin is turned counter clockwise until the bend in the upper branch jumps off from under the safety pin's lower branch.



- Twist the pull ring backwards before you pull the safety pin off.



- The safety pin is pulled from fuse with a straight pull after which the hand gre-nade is ready to be thrown.



- The pull ring remains on the index finger of the hand that is free.

Never attach a detonator to the fuse of a practice grenade or smoke grenade

Purpose
Hand grenades are effective in close combat when the enemy is located behind an obstacle. Grenades must be kept ready for use either in your fighting load or in your fighting position.

Typical situations in which you use grenades:

- hand grenades are effective in close combat when the enemy is located behind an obstacle
- surprise fire
- when supporting disengagement
- taking over a trench
- destroying a vehicle.

Throwing position and throwing
The throwing position depends on the situation. Accuracy is what counts most when throwing. You throw a hand grenade the same way that you throw a baseball.



Throwing a hand grenade while kneeling.



Throwing a hand grenade while standing.



Throwing a hand grenade from behind an obstacle.



Throwing a hand grenade while lying down.

Anti-tank mine 65 77 (TM 65 77)

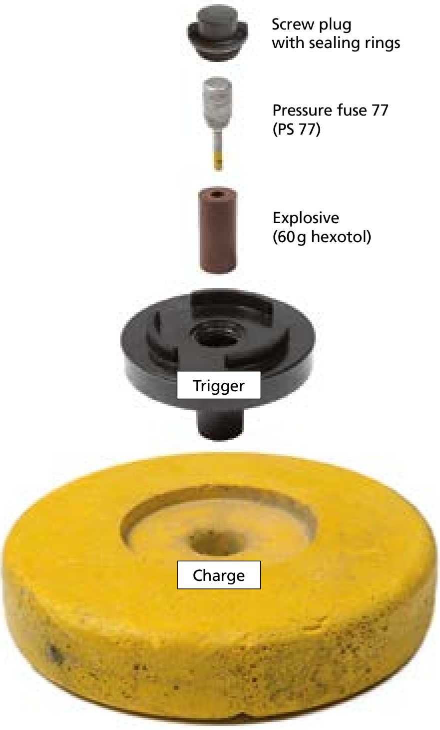
A soldier must know how to lay an anti-tank mine on the surface of the ground in one minute and he must be able to lay an anti-tank mine below ground in 5 minutes and in winter in 10 minutes. A soldier must know how to put together an anti-tank mine.

Technical data

- the practice anti-tank mine is yellow. An actual anti-tank mine is green or grey.
- an anti-tank mine is primarily intended against tanks and its effect is based on causing an explosion or blast
- an anti-tank mine's charge part is made up of an explosive (TNT) and reinforced with fibreglass cloth
- an anti-tank mine breaks the tank's continuous tracks and damages the wheels
- an anti-tank mine will destroy a wheeled vehicle
- there is a detonator in the mine's trigger that connects the fuse to the charge and strengthens the detonation
- the fuse is a pressure fuse 77
- a non-booby-trapped anti-tank mine will detonate when a 150 kg load presses on the detonator. This causes
- the detonator to break, which sets off and ignites the fuse
- the mine weighs 10 kg, of which TNT accounts for 9.5 kg.



The main parts of an anti-tank 65 77 mine







Setting an anti-tank mine

Laying and removing an anti-tank 65 77 mine

Anti-tank mine (65 77) can be laid in terrain, on a road, in shallow water or in snow.

You should leave at least 5 metres in between anti-tank mines. The laying of a mine barrage is to be covered by a fireteam armed with a light anti-tank weapon.

Laying an anti-tank mine

- Choose a place for the mine along the tank's path. Keep your firearm on the calf of your leg for example.
- Dig a hole for the mine. Remove soil so that the edges have a gentle curve.
- Place the mine in the hole. Place the carrying strap under the mine. Lay the mine so that the trigger's surface is 1 cm above ground and the part with the charge below the surface of the ground.
- Hide the mine using your hands, not a shovel.
- Set up the fuse. Open the screw plug, place the fuse in its place, check that the sealing ring is in place and screw the plug on.
- Give the finishing touches to concealing the mine using your hands.
- Do not lay a mine if it is missing parts or the trigger lid, or if the screw plug is damaged or if the fuse will not fit in the fuse emplacement. You must not use force to put the fuse in the fuse emplacement.

Removing a mine

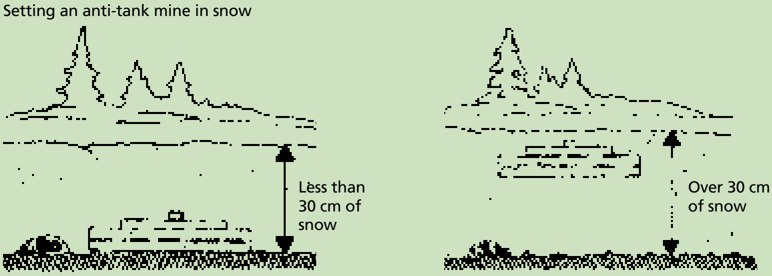
- Remove whatever is concealing the mine.
- Open the screw plug and remove the fuse.
- Lift the mine away from its hole.
- Screw the screw plug back on.

If the fuse does not detach itself easily from the fuse emplacement, the mine must be blown up in its hole using a separate charge.

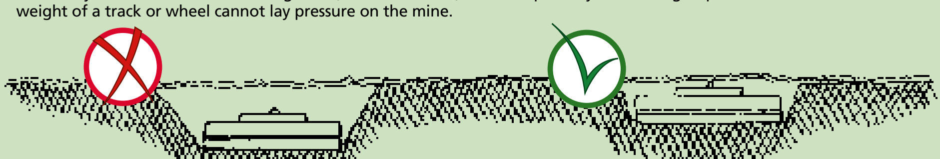
Setting a mine in snow

A tank's track will sink into snow or loose soil as much as a soldier wearing full gear. Do not lay a mine in a hollow in the ground, next to a stone, tree stump or any other thing or place in the terrain where the weight of a track or wheel cannot lay pressure on the mine.

Setting an anti-tank mine in snow



Do not lay a mine in a hollow in the ground, next to a stone, tree stump or any other thing or place in the terrain where the weight of a track or wheel cannot lay pressure on the mine.



Nuisance minefield

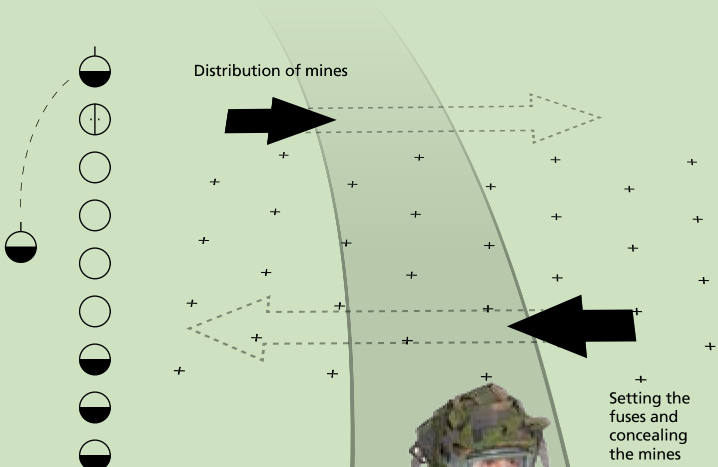
A nuisance minefield is made up of a platoon's anti-tank mines and used to close off roads from tanks until there has been enough time to construct actual obstacles.

The purpose of a nuisance minefield is to protect the platoon while it engages in other activities. If required, several places can be prepared for nuisance minefield purposes. A nuisance minefield will consist of 10–30 anti-tank mines.

A nuisance minefield is to be set up in an area that is within the firing range of a light anti-tank weapon. A nuisance minefield is to be set up along a tank route that cannot be easily avoided.

A nuisance minefield is to be dug up and taken with the platoon as the platoon moves to a new area. A nuisance minefield must be kept under surveillance. Friendly vehicles must be prevented from driving into the nuisance minefield by guarding the minefield and by blocking the area with bars.

Laying a nuisance minefield in an unrecced or unprepared area





- The section laying the minefield proceeds to the area in section file and will form a file with ca. 5–10 m intervals
- When the section leader distributes the fuses, he stands in the middle but behind those laying the mines
- each soldier has 2–4 mines
- the section leader has smoke with which to conceal the building of the mine barrage, if necessary
- distances between mines 5–10 m
- men are numbered 1 and 2
- mines are laid following the command of the section leader "YKKÖSET MIINA!, KAKKOSET MIINA" (= ONES' MINE, TWOS' MINE)
- the setting up is begun following the command of the section leader "ASENNA!" (= PUT IN FUSE) (facing already activated mines)
- mines are concealed
- the weapon is held slung across the back

Command-detonated fragmentation charges

Directed fragmentation charges 84, 88, 01 and 2010 are directional fragmentation charges in a moulded plastic case. The front of the case contains steel balls which cause a fragmentation charge shaped in a horizontal arc. The charges are set up on their own tripod and directed towards the target. Charges can be detonated one at a time or they can be chain-detonated with an adaptor or with an explosive fuse. Charges are detonated with an electric, pull release or impulse hose ignition. Light charges are used against living targets while heavy charges are used against unarmoured and lightly armoured vehicles and against helicopters.

Command-detonated fragmentation charges are used, for instance, to protect bases, during raids or in the surveillance of minefield travel corridors as well as in rapidly closing them off.

Light directed fragmentation charges

Light directed fragmentation charges (88, 2010) are used against infantry units. When detonated, they form an approx. 50-metre wide and 2-metre high steel ball arc from a distance of 50 metres from where the charge is located. The steel balls penetrate dry planks from a distance of 50 metres by 20 mm and in the case of steel, 2 mm. The charge is triggered mainly with the fuse equipment within the case.

The charge is set up on its own tripod and set to face a certain direction. You should try to set the charge in a place as high as possible, for e.g. on a mound. The charge is directed with a finder.

Directed Fragmentation Charge 2010 (VP2010)

Specifications and effect on target:

- weight 2.5 kg
- explosive 1.4 kg
- fragments 924 pieces
- penetration (50 m) > 2 mm steel
- effective range 100 m
- arc of the fragmentation charge 60 degrees
- height of the fragmentation charge 2 m (50 m)
- lethal range 50 m

When detonated, they form an approx. 50-metre wide and 2-metre high steel ball arc from a distance of 50 metres from where the charge is located.

Directed Fragmentation Charge 2010 (VP2010)





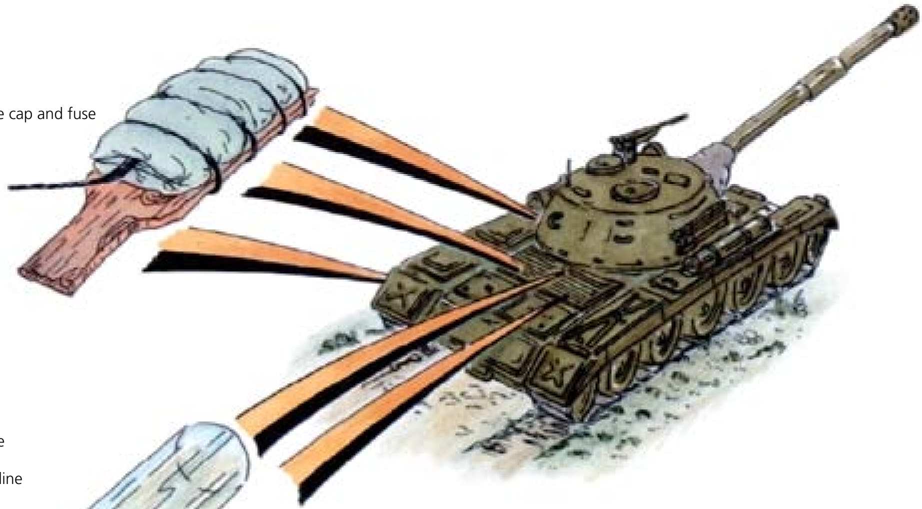
An example of how to set up a directed fragmentation charge 2010 (VP2010):

- Check the position where you will set and detonate the charge
- Secure the shock tube to a tree, stone, branch or equiv. that is close by. (Directed Fragmentation Charge 10)
- Unroll the firing wire from the place you are setting up the VP2010 to the position where it is going to be fired.
- Attach the legs to the middle section of the tripod.
- Choose the position according to the environment and the purpose the charge is being used for (low / high / a combination)
  - Alternatively, the VP2010 can be mounted on a tree using the clamp (the clamp is screwed to the tree, the clamp replaces the tripod).
- Attach the finder to the charge
- Attach the charge to the tripod's ball end
- Aim the charge
  - Using the rear sight slot
  - And more accurately using the sight tube
  - Lock the right position using the butterfly screw
- Camouflage the charge
- Push the blasting cap into the fuse area
  - Attach the blasting cap to the charge so that it cannot fall off accidentally
  - A place to secure the shock tube
- Check camouflage and aiming

Satchel charge

Structure:
- board base
- minimum 4 kg explosive
- 15 cm firmly attached wire cap and fuse

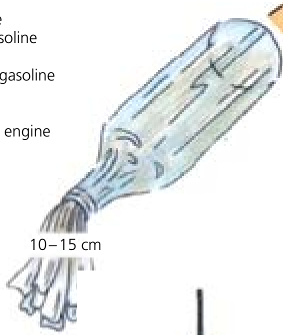
Emplacement:
- at base of tower
- on top of engine
 by the air vents
- on tracks (immobile tank)



Molotov cocktail

Structure:
- 1/2-1 litre glass bottle
- usually containing gasoline
- as cork and fuse
 cloth dampened with gasoline

Emplacement:
- by air vents on top of engine

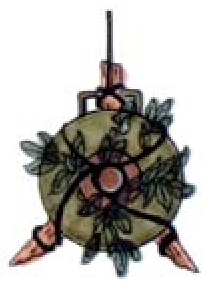


Improvised anti-tank weapons

A section's anti-tanks weaponry can be complemented with improvised anti-tank weapons. A soldier must know how to put together such improvised weapons and destroy tanks that are close. In addition, a soldier must be able to destroy a crew-served weapon position with improvised weapons while the rest of the section provides support. Smoke can be used to camouflage the section while it is engaged in improvised anti-tank weapon activities.

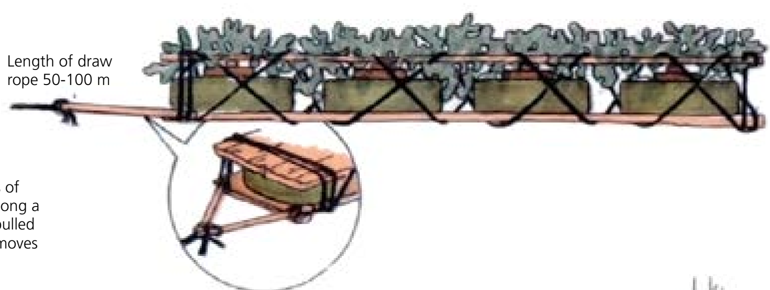
Pole mine

Mine is tied to the fork of a branch and camouflaged



Towed charge

Steering piece is made steady and strong

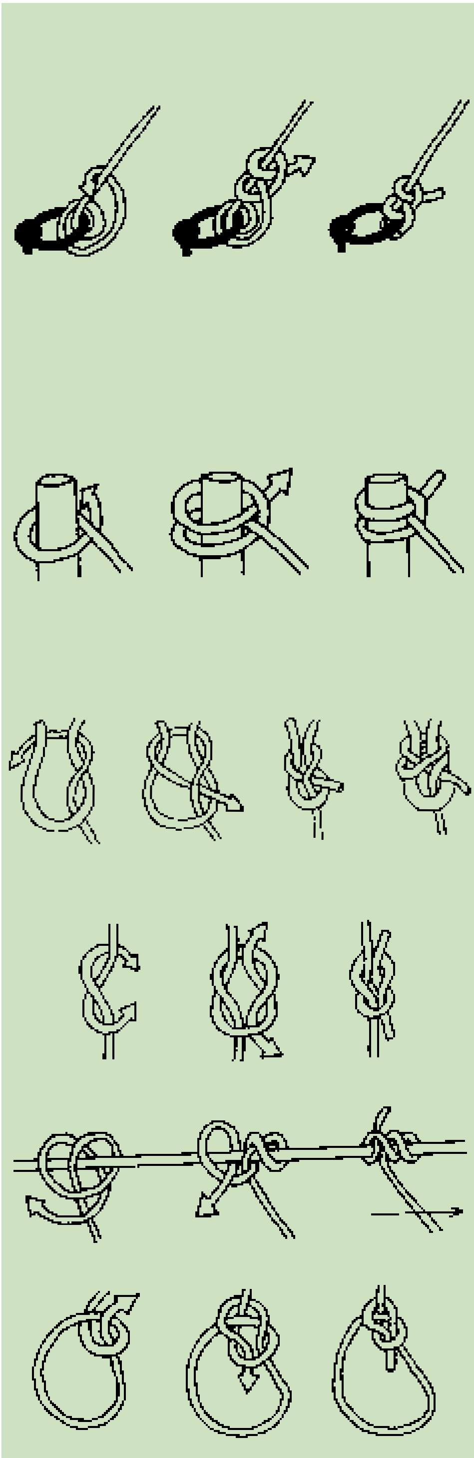


Pole mines, towed mines and strings of anti-tank mines are set in advance along a likely combat vehicle route and are pulled in front of the tracks of a tank as it moves forward

A series of anti-tank mines attached to one another



5.11 Knots used in the military and their purposes



Two half-hitches
This is used to attach a cord to a loop or ring. The knot is secure and it distributes the friction caused by rubbing along the long part of the cord.

Tent knot (a loose two half-hitches knot)
Attaching the tent's cords so that the knot can be easily undone and will not freeze. The knot is tied the same way a two half-hitches knot is tied, but without tightening the knot. Make 4-5 simple loops around the tent cord with intervals of about 20 cm in between them.

Clove hitch
This is used to attach something to a pole temporarily. The knot can be made quickly and it is easy to open. When tying a temporary towline with a clove hitch to e.g., a car's towbar, the knot must be made into a slipknot to make untying easier.

Sheet bend
Used to tie two cords together. The knot is more secure than a reef knot. The knot can be made even more secure by doubling it. The sheet bend is especially used when tying together a thin cord with a thicker one.

Reef knot
Used to tie two cords together. The knot is not very secure but can be easily untied.

A double clove hitch
This is used to attach two cords to one another or to a cable. The knot will not slip either with a cord or cable.

Bowline (rescue knot)
Tying a loop that will not slip along the cord. The loop can be used, for instance, at the end of a rope that you throw to someone who has fallen through the ice. Learn to tie the knot with one hand onto a rope that you goes around your body.

5.12 **Signal training**

Electronic Warfare

Electronic warfare **(EW)** is any action involving the collection of intelligence information and surveillance of systems using or emitting electromagnetic radiation, as well as affecting them and providing protection against the effects of such systems. Electronic warfare is divided into electronic support, electronic attack and electronic protection.

The objective of electronic warfare is to

- **collect** information on the enemy's units and systems with passive methods through the electromagnetic spectrum for the purpose of generating situation picture, locating targets and being able to warn friendly units of imminent threats,
- **neutralize and delay** the enemy's intelligence, surveillance, command and control and use of its weapons and countermeasure systems by harassing or denying the enemy the use of the electromagnetic spectrum, by deceiving its sensors and disabling its electronic systems and
- **protect** friendly units and systems by deception measures or denying the enemy access to information concerning their strength, location, movement, disposition and intents, technical and operational features, and by monitoring friendly use of the electromagnetic spectrum.

Electronic support and electronic attack are activities conducted by electronic warfare forces, whereas electronic protection is performed by all radio operators.

Electronic threat

Electronic intelligence systems include special receivers and data processing equipment designed for signal search and identification, direction finding and location, and communications intercept. Electronic intelligence can be done so that the target does not even notice being intercepted. Ground-based electronic intelligence receiver stations are usually located close to the line of combat. They are deployed at a distance of 2-10 km from the advance units. Helicopters conducting electronic intelligence fly at a distance of 10-15 km in the enemy's rear. EW aircraft fly at a distance of over 20 km from our own units at an altitude of several kilometres. In addition, there are intelligence gathering stations operating in the HF band (1 - 30 MHz) deployed further away (tens-hundreds of km) from the combat zone. Jamming transmission stations are deployed at a corresponding distance.

Jamming can also be performed as close jamming where a low-power jammer operating in a wide frequency range is delivered to the proximity of a receiver intended to be jammed. Such a jammer can be delivered to a target by firing a jamming grenade with an artillery piece, by placing it manually close to the target or dropping it from an aircraft. Several close jammers are often delivered to an area intended to be jammed, so that the needed jamming effect will be achieved. Ground-based electronic intelligence has a range of a few tens of kilometres. The range increases if the transmitters targeted by intelligence are high powered, situated in elevated locations in the terrain, or if their antennas are oriented towards the enemy. Longer range can also be obtained if the intercept stations are located in elevated locations or aboard an aircraft or helicopter. The range of airborne intelligence depends on the flight altitude; it can be hundreds of kilometres.

A transmitter's locating precision is about 3-5 percent of the direction finding distance. Jamming range depends on the useful contact's distance and the transmit power of both the useful and jamming transmitter. In addition to these, jamming range is also affected by the antennas used, their height, and the terrain obstacles between the useful contact and the jammer. A longer jamming range is obtained if the jamming transmitter is high up and if the useful contact uses low power or omnidirectional antennas. As for jamming, it is worth noting that it starts by a signal, but affects reception. For this reason, the target of jamming does not necessarily even notice he is being jammed. In unfavourable cases, the jamming distance may be a hundred times longer than the useful contact, and in favourable ones about the same.

Electronic protection

A signaller can protect himself against electronic intelligence by many different ways. The most important are:

Document security

- Keep a watchful eye on the signal operating instructions, do not carry SOI information with you, and only share items you absolutely have to.

Wired connections, messenger and meeting

- construct wired connections and use them
- use a messenger or meet the recipient in person if you have enough time.

Choice of place and receiving station

- choose a place for the radio station, so that you get an obstacle made up by terrain, trees or a construction between your radio and the intelligence receiver (the radio's distance from the obstacle should not exceed the height of the obstacle)
- when using a wire antenna, use transverse connections with respect to the intelligence receiver whenever possible.

Antenna and its orientation

- use a wired antenna whenever possible
- if you cannot use a wire antenna, use a march antenna rather than a normal one.

Transmit power

- use minimum transmit power, estimate your power consumption in advance.

Check your equipment, so that it will not cause interference

- connections, outlets, tapings and weather protection
- settings, frequencies and receiving station IDs etc.

Communication discipline

- follow orders to not transmit
- do not transmit connection attempts
- if you can't establish contact with the receiving station: check your equipment, remove your radio to another place or change base stations
- in message device communication: put your message as briefly as possible
- in voice communication: prepare your message in advance and be as brief as possible
- use listed code words or some other type of coded language whenever possible
- if you have a problem, do not try to fix a faulty connection over the radio.

If your connection is jammed, do the following:

- Do not reveal over the radio that your radio is being jammed
  - listen for changes in the noise
  - keep transmitting by cutting your message into smaller portions and taking advantage of gaps in the jamming if you detect jamming, transmit briefly as soon as it is over
  - do not reveal to the jamming station that their jamming is working, if it does not prevent communicating, continue "as usual".
- Replace your whip antenna with a wired one.
- Check the structure of your wire antenna and, as needed, point it precisely at the receiving station.
- Switch to maximum transmit power.
- Switch to another base station in the message device network
  - and opt for transverse connections (wire antenna).
- Tune to an alternative frequency (voice)
  - and do not give orders in natural language and keep traffic in the previous frequency (if possible).
- Ask other command posts to relay messages,
  - this will shorten transmission distances and must be practised.
- Move to a new position and
  - opt for having a terrain obstacle between you and the jammer. Report the jamming to your supervisors and fill in a jamming incident report.

The situation dictates the type and order of measures to be used to counter jamming.

Communication equipment

Communication instruments are used for leading units and combat. They are used to relay orders, intelligence information, warnings, announcements and alerts, and data for controlling indirect fire.

A communication instrument in good working order contributes to the safety of the units. Protect your equipment from being bumped around and from humidity. In winter, keep your power sources in a warm place, for example inside over clothes or in a sleeping bag. In a fighting position, place your communications equipment in a safe place to protect it from rain, direct fire and shrapnel.



1. Audio connector
2. External battery connector
3. Mode selector
4. Call button
5. Battery selector
6. Line connectors
7. Selection disc attachment plate
8. Type plate
9. Tangent
10. Tone ringer
11. LED
12. Receiver

Field telephone P 78

Purpose:
P 78 is a low voltage, connection management field telephone. It is designed to be integrated into field communications networks and the internal communication in military bases, and, if needed, also as an AT subscriber. The telephone can also be used for remote controlling a radio. The mode of operation is selected with the mode selector; LB = local battery system, CB = central battery system and R = Radio remote control.

Technical features:

- Operating voltage: 4.5–6.0 V
- Power source: 3 x 1,5 V R20 batteries or an external power source 4,56 V
- Weight: 2.3 kg

Checking the functioning of the phone (quick test)

- check the phone's mechanical condition making sure that the case, cords, receiver, strap and crank (only inductor phone) are there
- shake the phone and listen for any indication of detached parts
- conduct a blow test; press the tangent on the receiver, blow into the microphone and check the sound of the blowing coming out of the earpiece.
- make a test call; connect the cable so that it is in short circuit, press the call button and check the sound of the generator from the earpiece
- Meaning of the LED colours:
  - normal: no fault, the receiving station is connected
  - no light: interruption or connection has not been made to the receiving station
  - overly bright: short circuit



1. Receiver
2. Tangent
3. Keyboard
4. External power source connection
5. Data connector
6. Line screws
7. Call button
8. Alarm selector
9. Signal lights
10. Mode selector
11. Receiver switch hook
12. Signal mode selector on the bottom of the battery case

Field telephone P 90

Purpose:

The telephone P-90 was designed to be a wall or desk telephone that can be used for local battery and AT- and radio remote controlled use. The phone can be switched on either a pulse or voice frequency system. Calls can be received with the receiver down.

Technical features:

- Operating voltage: internal 6 V or external 11-32 V
- Power source: 4 x 1,5 V R14 batteries or an external power source 11 – 32 V
- Weight: 1.5 kg

Calls are answered with the unit's code ID. It is possible to intercept communications. Listed code words or some other type of coded language is used when needed. Calls are made by pressing the call button which alarms the receiving station or central. Press the tangent for speaking. When on telephone duty, write down any messages received and give them to your section leader.



1. External power source and remote device connection
2. Coaxial input antenna attachment
3. Rod antenna socket.
4. Channel setup
5. Megahertz tuner (MHz)
6. Frequency window
7. Kilohertz tuner (KHz)
8. Function switch
9. Receiver volume control
10. Audio connections for phone and message device

LV 217

Purpose:
LV 217 is a portable, multi-channel analogue field radio in a waterproof metal case. The radio can also be used in remote use.

Technical features:

- Frequency range: 30 MHz – 76 MHz
- Power sources: battery case 12 V, lithium battery 14,4 V or network device
- Operating time of the power sources: 3:1 reception - transmission ratio battery case appr. 12 h and lithium battery appr. 15 h.
- Recommended range:
  - march antenna: 6-8 km
  - normal antenna: 12-14 km
  - long-wire antenna: 15–30 km
- Transmit power: 1 – 4 W
- Weight: 10.5 kg

The different antennas of the radio give out a different propagation pattern. The march and normal antennas are omnidirectional. The long-wire antenna produces directional effect which reduces the audibility of the radio in the direction of the enemy while strengthening it in the direction of the friendly receiving station. A long wire antenna should be used whenever possible.



1. External power source and remote device connection
2. Coaxial input antenna attachment,
3. Channel setup (press for setting up channels 1–9)
4. Megahertz tuner (up/down),
5. Frequency window
6. Kilohertz tuner (up/down),
7. Audio connections for phone and message device
8. Receiver volume control
9. Function switch
10. Channel switch
11. Power supply switch
12. Rod antenna socket.

LV 217 M

Purpose:
The LV 217 M is a VHF range transceiver. You can set up frequency pairs, so transmission and reception will be on different frequencies (two frequency simplex connection). All LV 217 accessories are compatible with the LV 217 M.

Technical features:
- Frequency range: 30-88 MHz
- Power sources: battery case 12 V, lithium battery 14,4 V or network device
- Transmit output: LO = 0,3 W, MED =2 W, HI = 5 W
- Squelches: TONE opens with a 150 Hz Signal and SQUELCH opens with a 0,35 V signal
- Memory locations: 1 + 9
- Weight: 9.4 kg

Main differences in comparison with the LV 217:
- wider frequency range
- smaller channel space, 25 kHz
- dual frequency half duplex option
- three transmit power options
- 10 preselection frequencies
- two squelch modes
- power supply depletion warning signal



1. Radio
2. Printer
3. Calculator
4. Power source
5. Squelch
6. Power source case
7. Keyboard

Message device M90

Purpose:

Message device M/90 is a digital, microprocessor based device for sending and receiving free and fixed form messages, and for processing them in local use. The message device relies on phone and radio connections for message transmission. Message device M83/90 has been modified from the M/83 to feature almost the same functions as the M/90. The programs of the message devices were upgraded in 2011 to feature the coordinate and grid based (UTMzn/MGRS) E-N-H (i-p-k) location reporting procedure.

Technical features:

- Power source: 4 x NiCd cells, 4 x R20 batteries or lithium battery
- Operating time: 8-24 h
- Transmission memories: 8 locations, each max. 2,000 characters
- Receiving memories: 9 locations, each max. 12,000 characters
- Message type: free and fixed form
- Weight: 3 kg

LV141

Purpose:
LV 141 is a small sized VHF induction zone radio for the transmission of voice and data. The radio has three modes: unencrypted, encrypted and anti-jamming (AJ). The radio is compatible with the LV 241.

Technical features:

- Power source: a chargeable Li-ion battery 14 V
- Frequency range: 30.000–87.975 MHz
- Channels: 2,320 at 25 kHz intervals
- Frequency selection: manual or using memory locations
- Preselected channels 10
- Transmit power: LO = 0,25 W or HI = 2 W
- Encryption status: CLR = unencrypted, SEC = encrypted, AJ = anti-jamming
- Squelch: 150 Hz or level of noise
- Voice transmission: analogue speech (Clear), digital speech (CVSD)
- Data transmission: synchronic and asynchronic 50, 75, 100, 150, 300, 600, 1200, 2400, 4800 bps with correction 16 kbps (synchronic) without correction
- Weight: 760 g
- Measurements: 180 x 75 x 55 mm



1. Antenna connector
2. Channel switch
3. Audio connector
4. AJ LED orange, SEC LED green, CLR LED red,
5. Data connector
6. Loudspeaker
7. Display
8. Tangent
9. Squelch ON/OFF
10. Microphone
11. Volume and ON/OFF



1. Antenna connector
2. Display
3. CLR, SEC, AJ signals
4. Channel switch
5. RMT/Data connector
6. Audio connectors
7. Message device or LS-108M
8. Handset
9. Volume control
10. Whisper mode
11. Selector

LV241,341,342

Purpose:
LV 241/ 341/342 are digital field radios.
LV 241 is portable and LV341/342 are vehicle installable. They all base on the same transceiver. LV 341 differs from LV 342 in that the LV 342 has two radios in the same assembly.

Technical features:

- Power source: LV 241 chargeable NiCd battery, LV 341/342 24 VDC from a vehicle
- Frequency range: 30–107.975 MHz
- Channels: 3,120 at 25 kHz intervals
- Preselected channels 100
- Transmit power: LV 241 LO = 0,25 W; MD = 5 W or HI = 5 W, LV 341/342 LO = 0,25 W ; MD = 5 W or HI = 50 W
- Encryption status: CLR = unencrypted, SEC = encrypted, AJ = anti-jamming
- Voice transmission: analogue speech (Clear), digital speech (CVSD or vocoder)
- Data transmission: synchronic 50, 75, 100, 150, 300, 600, 1200, 2400, 4800, 9600, 16000 and 32,000 bps, Asynchronic 50, 75, 100, 150, 300, 600, 1200, 2400, 4800, 9600 and 19200 bps burst max. 200 pre-fed text messages
- Weight: LV 241 3,0 kg (without battery), LV 341 14,4 kg
- Dimensions: LV 241 225 x 185 x 85 mm (without battery), LV 341 242 x 315 x 176 mm (without cables)

Use of alphabet words

To avoid misunderstanding in voice communications, words, abbreviations and IDs must be pronounced in alphabet word form. English language alphabet code words established in international activities are used nationally as well. Alphabet words for the letters Ä and Ö are only used nationally. If you have to use them in international activities for example for names or places, replace them as shown in the table.

Signal alphabet

Letter	Name	[pronounced as Finnish]	Morse code
A,Ä	Alfa	[*alfa*]	•—
B	Bravo	[*braavo*]	—•••
C	Charlie	[*tshaali*]	—•—•
D	Delta	[*delta*]	—••
E	Echo	[*eko*]	•
F	Foxtrot	[*fokstrot*]	••—•
G	Golf	[*golf*]	——•
H	Hotel	[*hotel*]	••••
I	India	[*india*]	••
J	Juliet	[*tsuliet*]	•———
K	Kilo	[*kilo*]	—•—
L	Lima	[*lima*]	•—••
M	Mike	[*maik*]	——
N	November	[*november*]	•—
O,Ö,Å	Oscar	[oska(r)]	———
P	Papa	[*papa*]	•——•
Q	Quebec	[*kebek*]	——•—
R	Romeo	[*roomio*]	•—•
S	Sierra	[*sierra*]	•••
T	Tango	[*tango*]	—
U	Uniform	[*juniform*]	••—
V	Victor	[*vikto(r)*]	•••—
W	Whiskey	[*wiski*]	•——
X	X-ray	[*eksrei*]	—••—
Y	Yankee	[*jenkii*]	—•——
Z	Zulu	[*zulu*]	——••

In national activities

Å	Åke	[*ooke*]	•——•—
Ä	Äiti	[*äiti*]	•—•—
Ö	Öljy	[*öljy*]	———•

Spelling instructions

To make communication faster and clearer, some frequently used types of terms have been given precise spelling instructions that have to be used both in voice and message communication.

Follow these instructions when saying numbers and groups of letters:

- 23 = kaksikolme
- 823 = kahdeksankaksikolme
- 4823 = neljäkahdeksankaksikolme
- 54823 = viisineljä kahdeksankaksikolme
- 654823 = kuusiviisineljä kahdeksankaksikolme
- 7654823 = seitsemänkuusiviisi neljäkahdeksankaksikolme
- dy = deltayankee
- ndy = novemberdeltayankee
- andy = alfanovemberdeltayankee
- randy = romeoalfa novemberdeltayankee

Combinations of numbers or other concepts with a specific use may have a specific spelling as well:

- Time 13:35 = kolmetoista kolmekymmentäviisi
- Date 8.1.1971 = kahdeksas ensimmäistä seitsemänkymmentäyksi
- Direction / bearing 18-56 = kahdeksantoistaviisikuusi
- Coordinates 1348 = yksikolmeneljäkahdeksan
- Range 10,250 m = kymmenentuhatta kaksisataaviisikymmentä
- Degrees and minutes 7 08 = seitsemänastetta nollakahdeksanminuuttia

Communication with a voice communication radio

When transmitting communications, message devices or voice encryption devices are the primary tools used. If neither of these is available, transmit your message in a very short form and use listed code words.

Voice radio traffic has to be short and prepared in advance. Prepare your communication as follows:

- check the radio's technical working condition and set it up for use
- consult the radio traffic table for signal operating instructions; frequency, time, station ID and encryption key
- put your message into an unambiguous and short form (basic message form)
- if necessary, put your message in listed code word form or use given code names and coded unit numbers.
- listen to the frequency for a moment before making your opening call in order not to interrupt ongoing radio traffic

Press the tangent for speaking. Release it when not transmitting. You can only transmit for 3-5 seconds at a time. If the transmission takes longer than that, automatic jammers have enough time to lock on the frequency and start jamming. Do not indicate over the radio that you are being jammed. When communicating, use the code ID of the unit or leader. Do not mention ranks or names.

Use the following prowords to shorten transmission time and to make sure your message is understood.

- VALMIS (ready) I am ready to receive your message
- ODOTA (wait) for example for fetching the right person.
- SAIN (received) I received your message and I am ready to receive the next bit
- TOISTA I did not hear you – say again
- LOPPU The transmission has ended.

The opening call is done as follows:

- Station 1 (BE) KILO LIMA, BRAVO ECHO
- Station 2 (KL) KILO LIMA

Example message: (One output may take about 3 seconds)

- Station 1 TOTEUTTAKAA SIERRA, LOPPU (execute SIERRA, over)
- Station 2 SAIN, LOPPU (received, out)



Find a location for the radio station where there is an obstacle in the terrain in the direction of the enemy, but no high hills or constructions in the direction of the receiving station.

Requirements for a VHF radio station location

A VHF radio is used either for message communication equipped with message devices, or for voice communication for commanding troops directly. VHF radios are deployed in selected positions in the command post area. Their use requires the building of remote control wiring.

Voice communication radio stations are deployed 50 - 200 m apart from each other in the communications centre.

When building a fixed voice radio station, the following has to be taken into consideration:

- the site has to have a mast or trees for building an antenna
- Between the antenna and the information exchange contact, there should be no obstacles such as dense woods, iron or concrete constructions or high voltage wiring
- In the direction of the enemy, there should be a hill sloping up or other obstacles
- Humid soil increases the power of the antenna
- Choose an elevated location
- Deploy the station on a slope on the opposite side of a hill seen in relation to the position of the enemy. Even a small difference in the placement of the radio may improve the connection.

Tasks:
Prepare the following short voice communication messages on the phone /radio:

- A guard reports enemy presence in the fire area
- A fire mission to neutralize the enemy close to the indirect fire targets.
- Report that a convoy's first vehicle has driven on a mine

Things to think about:

- Why are message devices or voice encryption devices the primary tools used for transmitting communications?
- Review the basic message format.
- Why should you not mention ranks when transmitting a voice communication?
- Why do you have to transmit your messages in portions of 3-5 seconds maximum?

Building and maintaining field cable connections

The makeup of a section or patrol building field cable connections always depends of the situation. Typically, such a section consists of a section leader, two reel men, two mounters, and a connector who is also the second in command of the section.

The tasks of a section building a pair cable line can be distributed as follows:

- Section leader
  - leads the activities of the section, orients and gathers information to establish the best cable routing options.
- Reel man
  - walks in the ordered direction making sure that the cable unwinds evenly.
- Mounter
  - makes sure that the cable falls down loosely enough. He takes care of the attachments.
- Connector
  - is in charge of reel supplies and field cable connections
  - supervises the quality of the work, makes the necessary adjustments and runs test calls

Instructions for building the connection

The whole length of the cable is tested with a multimeter, phone or a test call before starting to set it up.

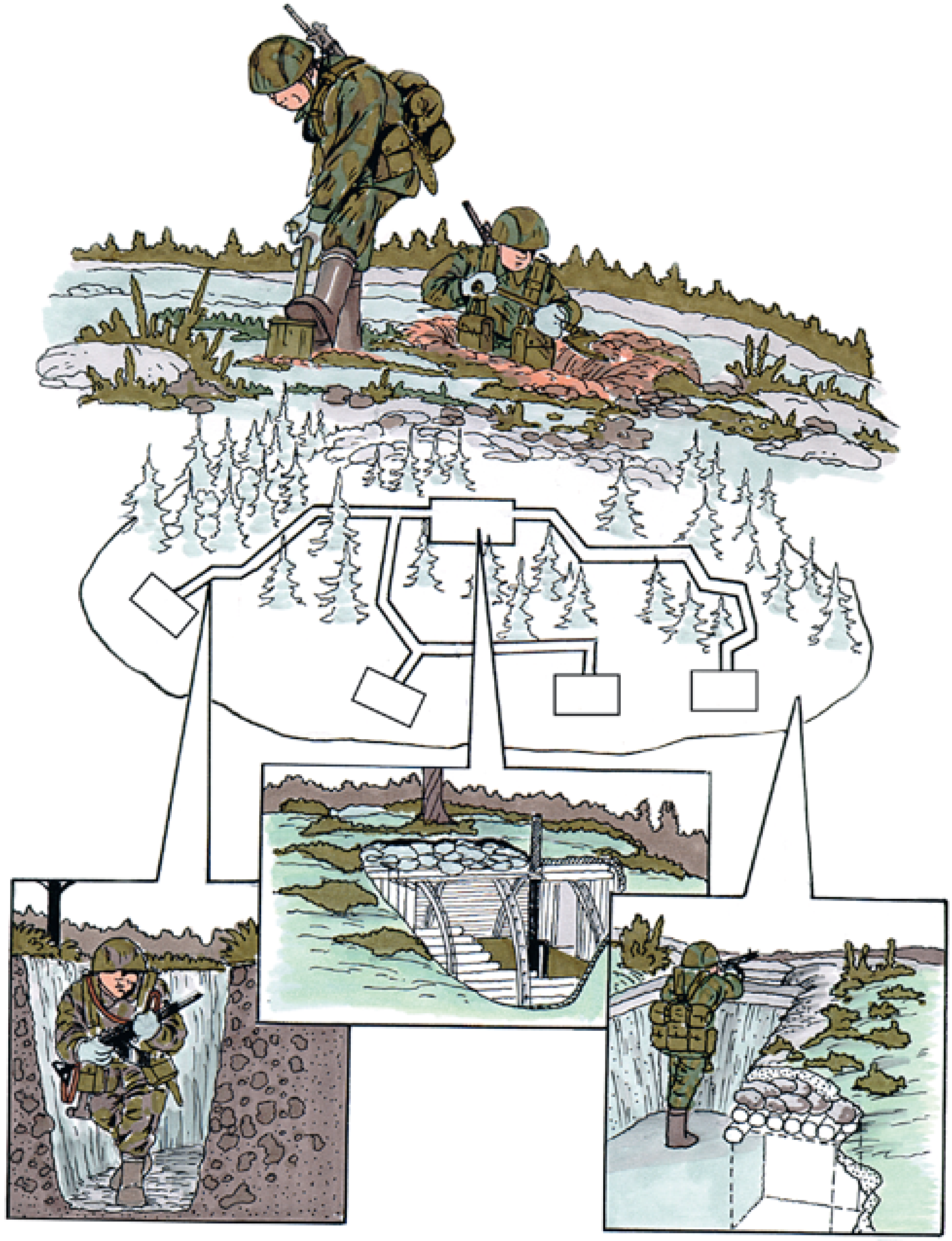
A field cable is usually laid on the ground. It should be laid above ground only at crossings and in areas with a lot of traffic where there is a high risk for the cable being damaged and it can't be protected in any other way. You need about 20 per cent more cable than the distance measured on the map. You can go under a road through a culvert or cross it on a bridge. You can lay the cable under a gravel road by digging a 20 cm deep track. The crossing point must be marked by a pine branch for example. When laying wires across the road, you should place traffic warning signs distanced at 100 m in each direction. In the terrain, the minimum height for laying a wire is 3 meters, but for wires crossing a road or some other vehicle track the corresponding height is 5 meters.

Dismantling field cable connections

The dismantling of field cable connections is usually done by the crew that set them up. The dismantling starts with telling the subscriber and the centre that the connection is about to be cut.

The tasks of a section dismantling a pair cable line can be distributed as follows:

- Section leader
  - leads and supervises the work of the section
- Mounter
  - walks before the section detaching the attachments, dismounts above-the-head cabling from its attachment points lowering it down or detaches on-the ground - cabling from undergrowth placing it on walking paths if needed
- Reel man
  - winds up the reel
- Connector
  - takes a full reel from the reel man, takes out the endings and ties the cable so that it will not unreel
  - takes the reel and puts it in the utility vehicle and gives the driver instructions for moving to the next location.



5.13 Fortifying a section's fighting position

Entrenching (protection level 4) provides protection from weapons and shrapnel.

Fortifications are built so that protection is developed starting with protection from direct fire (soldier's fighting position). Quartering fortifications are built to withstand grenade surface detonations.

Time needed for fortification

- section's fighting position 3-5 days
- combat outpost 3-7 days
- strong point 1-2 weeks

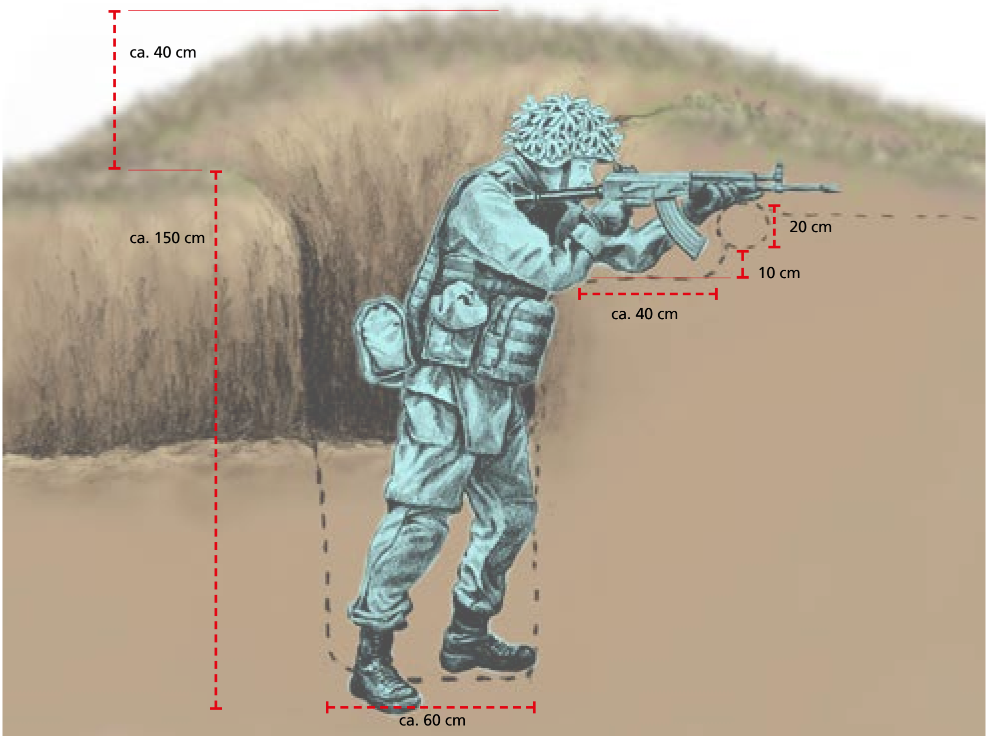
Other fortification protection levels are:

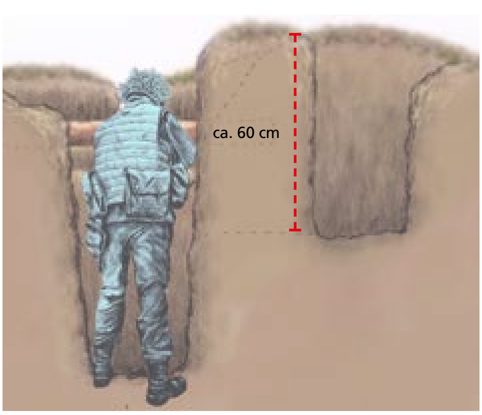
- light partial fortification (protection level 3)
- heavy partial fortification (protection level 2)
- permanent defences (protection level 1)

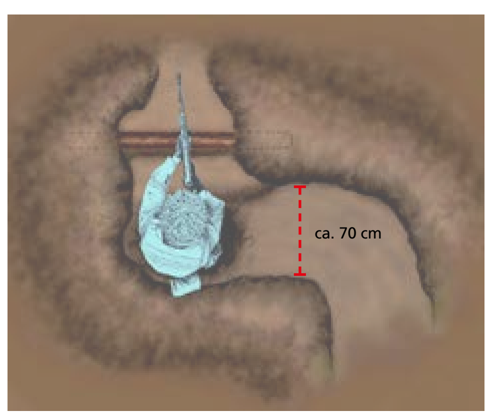
Fortifying a fighting position and protection thickness against hand-held weapons fire

A soldier must be capable of digging an open fighting position in four hours in summer and six hour in winter. partners or fireteams must be capable of joining the fighting positions that soldiers have dug for themselves into a joint fighting position for a two-man team or fire-team in 12 hours. A mutual, covered, protected space is created for the fireteam within the fighting position. This gives shelter from fragments from indirect fire, air attacks as well as the elements. In order to improve protection, the width of the fighting position should be as narrow as possible and the walls should be dug as vertical as possible.

Structure of an open one-man fighting position







Covering a fighting position dugout

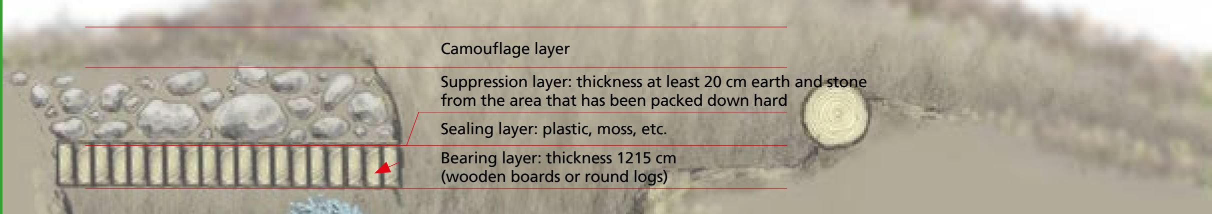
Build protective mounds taking your field of fire and protective thickness into consideration. Camouflage your fighting position carefully, start fortification by removing the surface layer of the earth from a large enough area around it. The surface layer that you have removed will be used to camouflage the fighting position so that it looks like the surrounding terrain. The protective thickness of earthworks is enough to stop bullets from hand-held weapons and shrapnel. Don't be lulled into a false sense of security by visual obstruction. Use your own weapon against the enemy also through a visual obstruction, e.g. through the trunk of a tree.

Individual fighting positions are camouflaged. Surface soil, fallen tree trunks and branches cleared from a firing area and, in winter, snow is used for camouflaging the different phases of digging entrenchments. Camouflage nets, paper, rain gear or various protective covers can also be used.

Work phases in preparing a fighting position in summer

- Remove the surface layer of the ground from the area where the fighting position and protective earth mounds will be (an area of at least 3 x 5 metres). Remove the layer in slabs (of about 30 x 30 cm) so that the undergrowth remains intact and can be used in camouflaging. This earth layer is the easiest to use in camouflaging.
- Move the upper soil layer to the back of the fighting position so that your field of fire remains open.
- Begin by digging your fighting position as a kneeling fighting position that is 60-80 cm deep. After that, if you have the time, dig to a depth or 120 -150 cm for a standing fighting position. Pile the earth you have dug out of the hole around the hole and the ordered field of fire to form protective earth mounds. The earth should be piled on both sides of the firing sector and on the sides of the fighting position so that a soldier in the fighting position cannot be seen as a silhouette against the background.
- When the protective earth mounds are approximately 30 cm high and at least 50 cm thick, camouflage them using the surface layer that you set aside at the beginning.
- Place a support for your weapon (e.g. a log of wood that is approximately 15-20 cm thick and 100-150 cm long) approximately 40-50 cm from the front edge of the fighting position. Place the support firmly enough on the ground so that it does not move. Sand bags can also be used as weapon supports.
- After the weapon support is in place, ensure that you are able to fire in the ordered field of fire and have a good fighting position by aiming your weapon in the field of fire.

Structure of the cover of a shelter with protection against fragments





- Construct restrictors for your field of fire if the protective mounds don't limit the field of fire enough. In this way you ensure that you fire in a direction that is safe from the point of view of your own forces even in conditions where visibility is poor.

Camouflaging tents and vehicles

» *1. Tightening the net – no shadows*
2. Gently sloping on the shade side – prevents shadows from forming
3. Edges of the net are tightly fastened – no revealing movement or shadows
4. Supporting the net from the inside
5. Shiny part of vehicles, such as mirrors and windows, are covered.

The distance between tents must be at least 50 metres.

Tents should be set in a natural depression or dug into the ground (until quartering fortifications are ready). There must also be a protected route from the tents to the firing positions. In order to decrease heat radiation, camouflage nets are mounted on poles above the tents.

The camouflage net breaks the shape of a target. Temporary material should be used in addition to the net. In addition to tents and vehicles, e.g. rucksacks, skis, sleds, firewood, woodcutting remains, cookery equipment, snow mobiles and other equipment must also be camouflaged. Deployment areas must be kept in good order so that equipment has its own designated places. Then they can be found when needed.

In winter, the section leader will order which trails are used to and from the site in order to avoid making unnecessary tracks and the site being detected from the air by the enemy. The driver of a vehicle is responsible for camouflaging his/her vehicle with the help of the section's soldiers.







Vehicles are parked 50 metres apart from other vehicles and tents.

In winter it is essential to avoid making unnecessary tracks.

Taking cover in the battlefield is discussed in section 5.2.

CBRN defence training

Soldiers have to know how to use their personal protection equipment and keep it in good working order. Soldiers must know how to act in case of a protection warning and protection alert. Measures required by a protection alert must be carried out in less than 10 seconds.

When well-serviced and correctly used, your protective gear protects you from
- chemical agents
- radioactive fallout
- biological agents and
- temporarily from heat, spray and sparks in burning areas.

Main parts of the CBRN respirator and inspection of working order
CBRN respirators are chosen and the mask is adjusted according to facial features. A long beard weakens the sealing capacity of the mask. This is why soldiers must be clean-shaven.

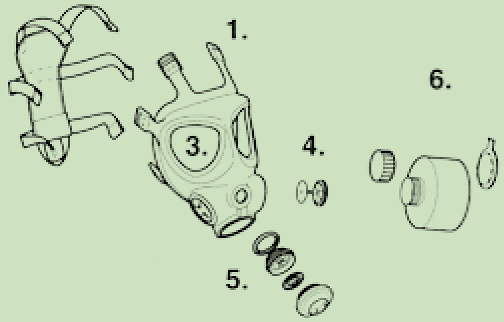
Features of protective equipment
The rubber of the CBRN respirator provides protection against corrosive gases for at least 24 hours, a rain poncho for less than 30 minutes and regular rubber boots for 46 hours. The filter withstands airborne gases for at least 24 hours. CBRN respirator 95 allows for the possibility of drinking and using visual equalisers. The CBRN respirator can be worn for 24 hours if necessary.

In addition to their fighting load and CBRN respirator, other personal protection equipment is distributed to soldiers if the situation requires. Company CBRN sections have special equipment for CBRN reconnaissance and immediate action.

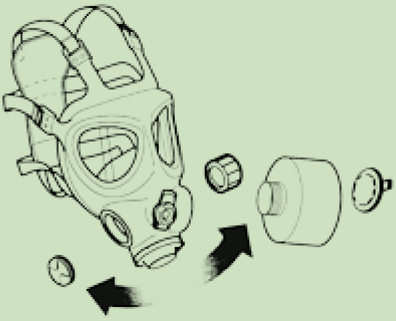
Putting on and using the CBRN respirator



Never remove sticker markings from the respirator or filter!

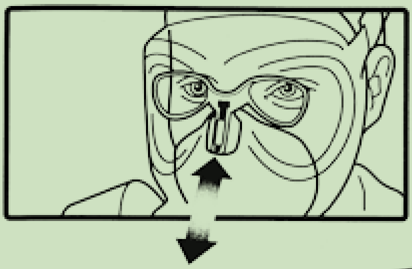


1. Before use check that the respirator's
- Rubber parts are intact (1)
- Straps are in good condition and flexible (2)
- Lenses are intact and clean (3)
- Valves for inhaling (4) and exhaling (5) are clean and in good condition
- Exhaling valve and its cover are tightly screwed closed
- Filter is in good condition (6).
- When you shake the filter it should not make any noise and carbon dust should not run out of it.



2. Attach the filter

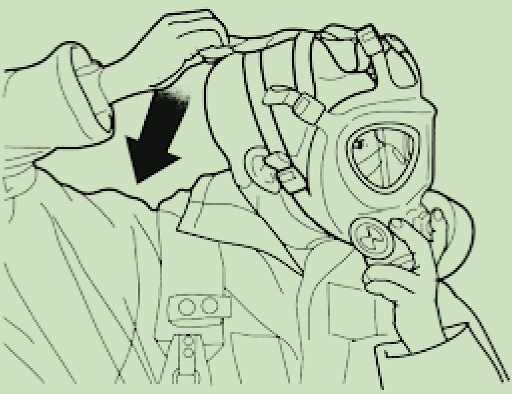
- Remove the screw cap and bottom plug from the filter
- Attach the filter either on the left or right side
- Place a plug/voicemitter on opposite side



3. Attach eyeglasses, adjust to the appropriate level



4. Loosen straps



5. Place the respirator chin first on your face and pull the straps over your head



6. Tighten the head straps evenly so that the head pad is centered in the middle of the back of the head

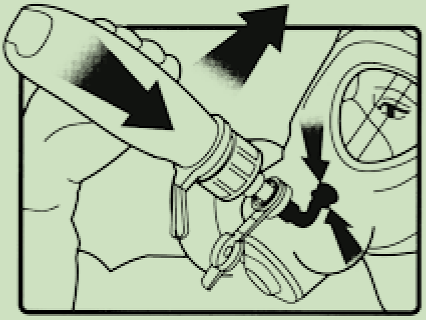
7. Blow hard

8. Check that the respirator is sealed

- No hair or other objects between skin and facepiece
- Block the opening of the filter with your hand
- Inhale air. This should seal the respirator onto your face
- If the respirator is not sealed, tighten the filter and exhaling valve pack and the plug

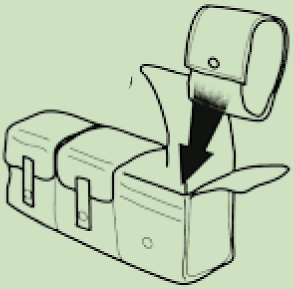


Using the drinking device



Use only clean water

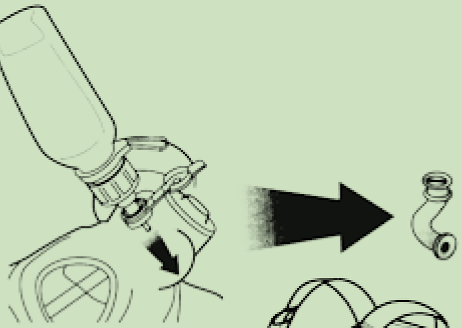
- Attach the cap of the drinking bottle to the canteen
- Open the drinking device plug in the facepiece
- Connect the bottle cap and the respirator's drinking device
- Using the drinking bottle, press the drinking tube into your mouth
- Squeeze open the head of the mouthpiece
- Let air into the bottle at intervals



Transporting the respirator

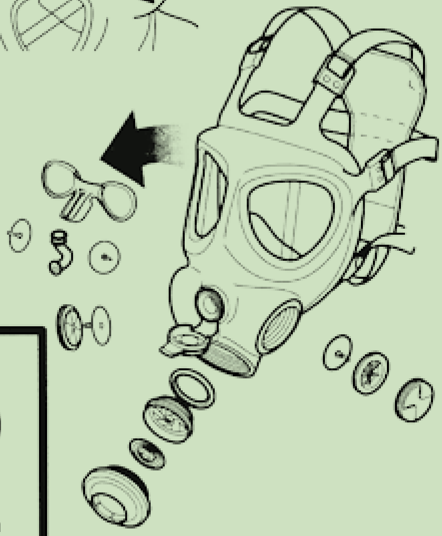
- Detach the filter
- Detach eyeglasses and put them in their case or inside cotton gloves.
- Put the eyeglasses inside the respirator
- Pack the respirator, eyeglasses, filter, protective gloves and cleaning powder in the respirator bag
- Place the bag in the right back pocket of the carrying device

Respirator maintenance



Cleaning drinking device

- Fill your canteen with clean water, attach it to the drinking device
- Detach the mouthpiece and wash it separately
- Flush water through the drinking device by squeezing hard on the canteen



Washing and disinfecting the facepiece

- Detach the parts depicted
- Wash the detached pieces and the facepiece with cleaning liquid/disinfectant
- Rinse the parts with clean water
- Dry the parts
- Reassemble the respirator



The filter must not get wet or be washed

Storing the CBRN respirator

- The respirator is part of your own personal equipment. It is disinfect-ed before use by another person. Don't lend it to other people!
- Store the respirator in the CBRN respirator bag, keep it dry with the filter plugs closed
- Don't throw the respirator and don't sit on it
- Handle the respirator so as not to scratch its lenses
- IT IS FORBIDDEN to keep or transport other equipment in the respirator bag

Personal primary cleaning and decontamination

Cleaning skin

- Powder contaminated skin area with your bare hand or a cotton glove
- Rub the contaminated skin area.
- Leave the powder on for one minute
- Shake off the powder
- Powder the skin again
- Rub, and leave the powder on the skin



Rinsing eyes

- Keep the eye open and rinse it with a lot of water for at least 30 seconds

Decontaminating equipment and clothing

- Powder contaminated areas
- Spread and rub in the powder wearing gloves
- Leave the powder on the equipment
- Don’t take off your CBRN respirator or protective gloves while decontaminating your equipment

Chemical agents

Are divided into air gases and terrain gases depending on their permanence. Air gases are released in the form of aerosols or gas and spread to the target area along the air currents. Terrain gases are spread in the terrain as drops of liquid that affect the target through vaporisation or physical contact.

Are divided according to toxicity

- irritating gases that act via inhalation
- choking gases that act via inhalation
- corrosive gases that act as droplets through equipment and skin and as vapour via the eye membranes and inhalation
- toxic gases that act via inhalation
- nerve gases that act via inhalation, the skin or foodstuffs
- psycho-chemical substances that act via the air or drinking water.

Herbicides are also classed as chemical agents.

Chemical agents can be solid, liquid, aerosol or gas.

Protection against CBRN weapons

When PROTECTION WARNING **is given**

(Radiation/nuclear, bio, gas or incendiary agent warning)

- Pass on the warning to others.
- Get your CBRN respirator ready. Put your CBRN respirator in the CBRN respirator bag. Using the loops at the top and bottom of the bag, attach the bag to the shoulder strap of your carrying device. Make sure that you have clean water in your water bottle. Put on your protective suit. Put on your cotton gloves and protective gloves on top of them. Cover bare skin. Take out your rain poncho.
- Prepare to cover your fighting position. Prepare to take cover.
- Carry on with your duties.

In case of a radiation warning you must also

- Collect spruce or pine branches for preliminary cleaning. Clear inflammable material away from around your fighting position. Prepare to stay under cover for several hours.

In case of an incendiary agent warning you must also

- Increase the amount of clothing you are wearing and cover bare skin. Clear inflammable material away from the vicinity of your fighting position. Get primary fire extinguishing equipment.

When PROTECTION ALERT is given
(Radiation/nuclear, bio, gas or incendiary agent alert)

- Pass on the alert to others.
- Hold your breath. Put on your CBRN respirator. Cover your body with your protective suit or rain poncho. Take cover in your fighting position and cover it. Stay covered until ordered to do otherwise. Don't take off your CBRN respirator until you are ordered to.
- Continue your mission as ordered by your section leader.

In case of a radiation/nuclear alert

- Throw yourself to the bottom of your fighting position.
- Stay where you are for the duration of the pressure effect. Keep your CBRN respirator on.
- Take the protective cover off your fighting position and clean it. Shake or brush radiative dust off your gear now and then.
- In a one-metre radius, remove contaminated soil from around your fighting position.
- Help your team-mate. Stay within the protection of your fighting position and continue to carry out your duties until your unit receives instructions on what to do next. Panicking will only make the situation worse.

After an incendiary attack

- Extinguish fire by smothering it with wet cloth, earth or sand etc. Cover burn injuries with a clean bandage. Scrape burning phosphorous off your skin and cover the burn injury with a moist bandage.
- Help your team-mate. Carry on with your duties. The section leader will order you what to do next.

5.14 Aerial protection and personal air defence

Aerial protection comprises measures intended to impede enemy airborne intelligence and operations against friendly units. The most important aerial protection measures an individual soldier can perform include concealment, camouflage, fortification, restricting the use of light, following the air situation, precise air alarm timing, and performing the right actions during an alarm. By his actions or by failing to follow orders an individual soldier could disclose the position of his unit, and, thus, cause casualties to the troops.

Early warning of an enemy air asset

A unit may receive an early warning of an enemy air asset by an air surveillance report, a message device or fire unit terminal (TASP 06). The majority of units do not have the TASP 06 for obtaining nationwide situation picture. It is extremely important for every command post to keep listening to air surveillance reports, so that they can receive an early warning of the enemy's air activities.

Air surveillance reporting is disseminated on the ULA frequency, and you can listen to it with a normal radio. The units must have an air surveillance grid for listening to air surveillance reporting.

» *An early warning is relayed to the units either by an AIR WARNING / AIR ALERT command, a siren, a vehicle audio signal, or some other signalling or communication device. Anyone detecting an approaching aircraft must make an air alert if necessary.*

Action during an air warning or alert

An air warning is given to the units in case enemy air power is suspected to start operations very soon (within 10-60 min.) As soon as an air warning is received, the units perform without delay any force protection measures required against the air threat:

- the air warning is relayed to everyone,
- any material and vehicles out in the open are moved to shelter and if possible to a fortified protection area.
- camouflage is improved according to need,
- personnel and material are moved to dispersed locations,
- air surveillance is intensified, and
- the personnel get ready to conduct self-protection air defence.

An air alert is given to the units in case it is probable that enemy air power will penetrate the area and no time is left (0 sec - 10 min).

When an air alert is given:

- the air alert is relayed to everyone,
- the units seek cover circumstances permitting
- air surveillance is intensified, and
- the personnel get ready to conduct self-protection air defence.

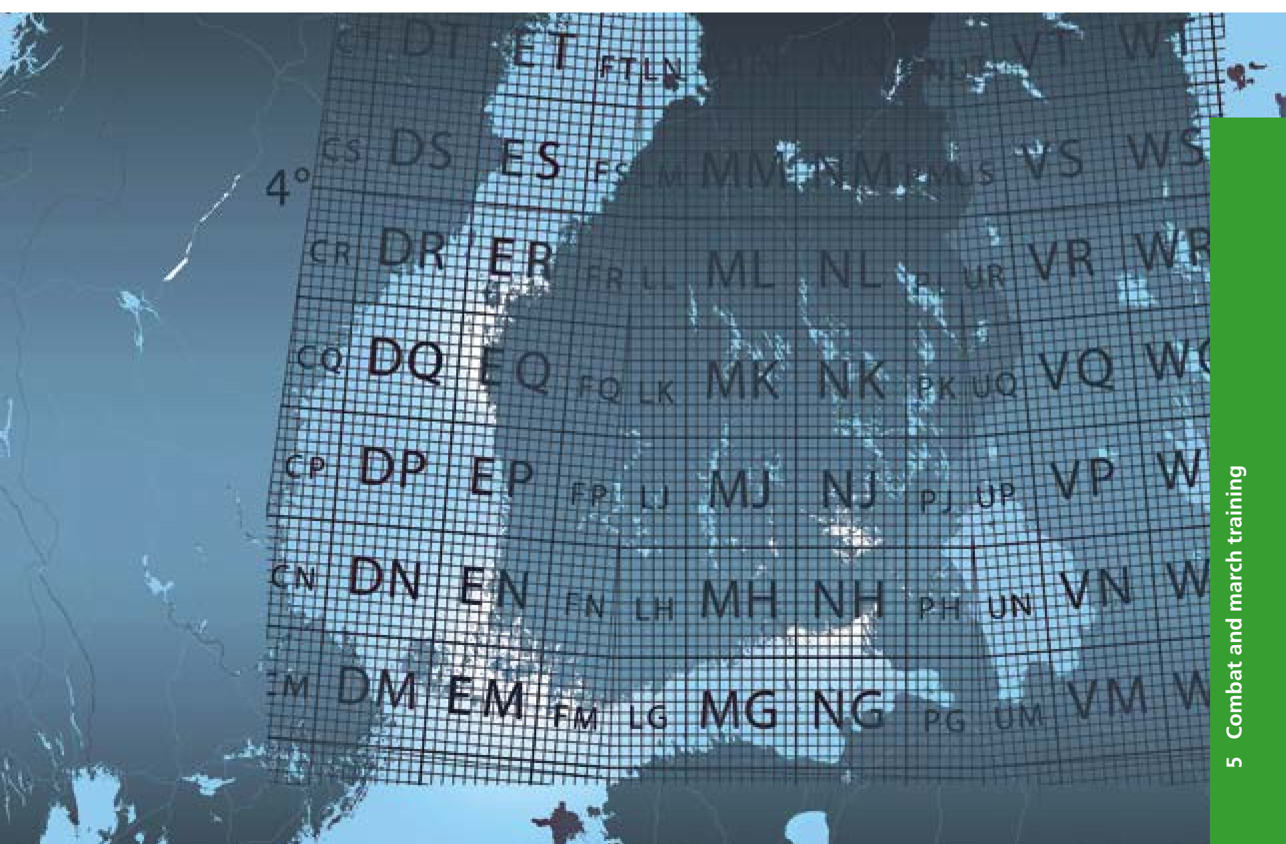
Disrupted activities are resumed by the order "VAARA OHI". (The danger is over).

Air surveillance report

In the air surveillance report, target location data is given with a 10 x 10 km precision stating first the 100km grid zone designation and then the grid square ID with an accuracy of 10 kilometres.

For example, "MIKE-HOTEL 45" means:

- target is in grid square MH
- 40 km east of the left margin of the square
- 50 km north of the bottom margin.



MGRS coordinate grid

Air surveillance report

Contents	Description
Audio signal	"."
New target	"UUSI MAALI"
Target ID	"3456"
Location	"MH 45"
Bearing with a 10 degree precision	"SUUNTA 350" (bearing 350)
Velocity with 50 km/h precision • Altitude in either hectometres (100 m=1 hm) or verbally • on the surface = < 300 m • low = 300 – 3,000 m • high = > 3,000 m	"NOPEUS 900" (velocity) "KORKEUS 3" (altitude) "PINNASSA" (surface)
Number	"3"
Type	"RYNNÄKKÖKONEITA" (Assault aircraft)



Personal air defence

Ground based air defence uses missiles, anti-aircraft guns and anti-aircraft machine guns. Some helicopter and fixed wing aircraft types are armoured against handgun shells. Even so, personnel air defence with handguns always makes it more difficult for aircraft to operate. Most helicopters and aircraft are very vulnerable to handgun fire.

Personal air defence, however, may give away the position of the firing unit.

A unit can protect itself with handgun fire against aircraft to:

- prevent transport helicopters from deploying units
- hamper or prevent combat or reconnaissance helicopters from delivering fire
- force a low flying helicopter or fixed-wing aircraft to get up from low altitude shade so that friendly air defence can reach it
- destroy or cause damage to low flying helicopters and aircraft

Personal air defence with handguns is not performed:

- to keep the position of the unit from being disclosed
- when the target is outside of the effective range (over 300 m)
- there are friendly aircraft over the area
- firing with handguns has been specifically prohibited

Anti-aircraft fire with handguns

- When the leader designates a target (for example, "HELIKOPTERI EDESSÄ") (helicopter in front) the shooter switches the catcher to serial fire, aims at the target and keeps pointing at it.
- When the leader orders a lead (for example, "ENNAKKO 5") (lead 5), the shooter estimates the lead mark point on the target's trajectory. The gun keeps pointing at the target.
- When the leader orders engagement ("HUOMIO- TULTA") (attention- fire) , the shooter, when hearing "TULTA" quickly directs his gun at his estimated lead mark point on the target trajectory and fires two short bursts (2-3 rds/burst).





5.15 Tactical combat casualty care (TCCC)

TCCC is emergency first aid given in combat conditions. TCCC is part of combat forces' medical services. The objective of TCCC is to prevent additional losses and maintain soldiers' combat efficiency by identifying and treating soldiers who are critically injured who have a possibility of surviving their injuries.

When combat is continued while TCCC is administered, this creates continued prerequisites for fulfilling the unit's mission and implementing TCCC without additional losses. TCCC is part of leadership activities and unit leaders must take this into consideration in their own combat plans. At section level, those administering TCCC are the injured themselves, teammates/fireteams and section combat lifesavers.

Most soldiers (up to 80 %) injured in combat conditions do not have immediate life-threatening injuries. Correspondingly, 70 % of those who have sustained life-threatening injuries die before reaching emergency surgery. Most of these deaths are unavoidable regardless of the level of medical treatment they receive.

The most common causes of death that could possibly be prevented are

1. life-threatening limb haemorrhage
2. loss of airway
3. pressure in the lung cavity, i.e. pneumothorax.

Soldier's first aid skills

Soldiers must know how to give first aid in combat conditions using their own medical kit. Soldiers must also be familiar with measures that follow TCCC so that they are able to assist combat lifesavers or medical orderlies in their work. In relation to the combat situation, all soldiers must know where their own unit's support or treatment site is.

Each soldier’s medical kit includes: a tourniquet and first field dressing, an emergency blanket, an atropine injection syringe and a classification/treatment card. The soldiers' medical kit should be kept in conformity within the unit, so that it can be located easily also in the dark. As a rule, tourniquets should be placed in such a way that a soldier can use them with either hand. TCCC is always begun using the injured soldier's own medical kit.

Combat lifesaver

The combat lifesaver is a soldier within the section, who has more extensive medical supplies and training. Combat lifesavers are responsible for providing TCCC training in their own section. The tasks of combat lifesavers include supplementing emergency first aid that has already been given, coordinating casualty evacuation for the part of their own section and replenishing medical supplies. The medical equipment of combat lifesavers can include e.g. pressure and first field dressing bandages, nasopharyngeal tubes, equipment for releasing pressure in the lung cavity (if trained in using these), valve bandages for chest injuries, hypothermia bag and classification/treatment cards.

TCCC while under fire

TCCC under fire includes such treatment measures that are carried out while under intense enemy fire. The most important first measures to be taken in TCCC are friendly support fire to hamper enemy activities and moving the casualty out from under fire or carrying out emergency extraction without sustaining additional losses. Your own section's supporting fire has to be strong and adapted to the situation, making good use of smoke grenades, for example.

If you are injured in combat

- Return fire and take cover
- Let the soldiers closest to you know that you have been injured.
- Use a tourniquet to stop intense bleeding from a limb.
- CONTINUE COMBAT until the situation has passed!
- If you feel you are about to lose consciousness, turn yourself on your side to ensure that your airways stay open.
- If you are unable to move or take cover, try to let the soldiers closest to you know that you are alive by moving e.g. your hand.

When a casualty is under fire, it is the section leader who makes the decision to give help or postpone giving help.

Wounded are moved quickly, usually by pulling them, to the closest shelter. If the distance of an emergency extraction is long and the casualty has a life-threatening haemorrhage, the flow of blood is stopped using a tourniquet before he/she is moved. No other treatment should be given while under fire. You must maintain your own combat efficiency and protection during an emergency extraction.

TCCC while protected from fire

TCCC is continued when the casualty and helper are protected from fire. The objective of treatment at this stage is to prevent the casualty from dying due to the most common causes in combat conditions and prepare the casualty for evacuation. In some cases the combat efficiency of the casualty can be restored.

A casualty's protective gear and clothing is opened or cut open only if this is necessary for examination, locating injuries and carrying out treatment. Casualties must be protected from the elements and the ground using an emergency blanket. While providing treatment, a casualty should be calmed e.g. by telling him/her what procedure is being done and why and what will be done next. If a casualty's level of consciousness is decreased, his/her weapon should be removed. While examining a casualty, protection of one's own activities must be maintained.

Tactical combat casualty care is carried out according to the cABC rule

c - catastrophic bleeding,
life-threatening limb haemorrhage

- Examine limbs in case of possible life-threatening haemorrhages
- Treat haemorrhages with a tourniquet or other available means

A – Airways,

- Verify that airways are open
- Ensure that they stay open

B – Breathing,

- Check if breathing is normal
- Treat possible injuries that endanger breathing

C – Circulation,

- Check for other possible bleeding
- Stop bleeding
- Place emergency blanket against the skin, under the clothes of the injured person to support circulation

Make preparations for immediate evacuation.

5.16 Environmental health and protection

Personal and unit-specific hygiene

Soldiers are personally responsible for keeping themselves and their own equipment clean. This also helps to prevent the spread of diseases, biological warfare agents and vermin. The unit leader is responsible for the working condition of his/her unit and that his/her soldiers have the possibility to maintain personal hygiene.

Wash yourself after hard physical work and sweating. Change your equipment if it gets wet and make sure that it dries. Exchange dirty and broken gear whenever possible. Brush your teeth after meals or chew xylitol chewing gum or lozenges.

» *Washing your hands is the most important and easiest way to realise personal hygiene!*

Living together in barracks increases the risk of spreading communicable diseases. For this reason it is important to keep accommodation clean and free of dust. If you have become ill with a communicable disease, it is your duty to avoid infecting others.

Water hygiene

The objective of water hygiene is to prevent immediate health risks and illnesses caused by or spread through water. Water quality is affected especially by waste water, animal and human excrement and flooding and torrential rain. The water in lakes, rivers and streams (so-called surface water) can cause illness even if the water looks clear and clean.

Good water discipline means that you don't use unpurified and untreated surface water for drinking or cooking. It also includes protecting waterways and water sources from being intentionally or accidentally polluted or contaminated.

If you are forced to use surface water as drinking water, you must purify it either by boiling it, using water purification tablets or filtering it (at least one of these). Keep your water container and water bottle clean by washing them regularly.

» *Always use only water that has been verified to be clean!*

Food hygiene

The objective of food hygiene is to prevent food stuffs from spoiling and diseases from being spread through food and the containers used for preparing and serving it.

Always wash your hands with clean water and soap, or use hand disinfectant before preparing and eating food. Always use only water that has been boiled or verified to be clean for preparing field rations. Heat food that is to be served to the boiling point and boil or fry food until it is cooked through. Keep foodstuffs and food containers separate from ammunition, fuel and waste during transport and protect them from dust, rain and sunlight. Use ladles, food tongs or disposable cutlery meant for taking and distributing food - don't use your own spork. Always close the lids of food containers after distributing and taking food. Don't leave food stuffs or food containers unattended. Bags used for packaging food must be made of plastic that withstands heat and is meant for packaging food. It is forbidden to leave plastic bags or other packages in the terrain. They must collected, sorted and disposed of together with other waste.

» *Keep your eating utensils clean! Don't eat food if you suspect that it has gone bad!*

Accommodation hygiene

Accommodation hygiene consists of all actions and requirements concerning accommodation facilities that are meant to prevent health risks relating to lodging. In joint accommodation, everyone is obligated to maintain cleanliness and take into consideration fellow servicemen and their need to feel comfortable and be able to rest. Spare your fellow servicemen from unnecessary noise!

Soldiers can contribute to the prevention of health risks in the accommodation facilities. By making sure that accommodation is cleaned and waste is correctly disposed of you help prevent vermin and the diseases they spread. Water damage and indoor air problems can be prevented by ensuring sufficient ventilation and drying wet or damp gear such as tents and outside equipment elsewhere.

Clean your accommodation space and keep your gear in order. Dispose of trash correctly every day. Air out the accommodation daily, do not obstruct air vents.

If you have symptoms or notice faults in the indoor air quality, contact the company sergeant major or conscript committee representative. They will notify the unit's occupational safety chief, they will notify the owner and those responsible for the maintenance of the facility in question, who will determine the necessity and take corrective measures. In cases where health-related symptoms occur, you should also contact the health centre.

5.17 Environmental protection

Environmental protection means protecting the environment (e.g. waterways, ground water, soil, air, vegetation, built up environments) from being damaged. Environmental protection is included in all activities and it is a part of a soldier's basic skills.

The objective of environmental protection training for the Defence Forces' conscripts is to prevent exercise areas and privately owned property used in training from becoming worn, damaged and polluted. The aim is also to in general affect conscripts' attitude towards environmental protection in a positive way.

Activities in the terrain must not endanger the health or environment of people or animals. Exercise areas can contain protected areas, such as the habitats of special animals or plants, or important ground water areas, where special caution needs to be taken or where activities should be entirely avoided. Be sure to follow regulations, exercise orders and maps or restriction signs posted in the terrain. Avoid producing waste, e.g. by taking with you only the amount of food you know that you can eat. If the area has a waste disposal and recycling point, make sure to follow given instructions and don't mix different types of waste. It is essential that special care is taken when collecting, transporting, handling and placing chemicals, fuel, waste and waste water. Handle fuel, lubricants and other chemicals only in areas designated for this purpose and follow the directions given by your instructors. When refuelling in the terrain, take care not to overfill tanks and always use the given protective equipment, such as absorption mats. Place tanks or canisters only in places designated for them, such as on strong holders. Don't pour fuel from one canister to another conduct corresponding actions that may cause fuel or chemicals from being spilled and absorbed into the ground.

Burn wood that is as dry as possible in stoves and open fires made with permission. Only dead wood found on the ground may be collected for firewood, unless the landowner has given permission for doing otherwise. Follow guidelines given for this. Don't throw material that should not be disposed of through burning into the fire.

Soldiers can also contribute to saving energy.

Don't use devices that consume energy unnecessarily. Make sure that doors and windows are not left open in heated facilities. Turn off the light when you leave a room for more than ten minutes. Avoid leaving the water running unnecessarily and use water sparingly. Take good care of your equipment. By doing this you make sure that it will last a long time, which is also good for the environment. Favour public or joint transportation when travelling while on leave.

Soldiers' environmental protection actions:

- don't leave any trash in nature, take trash to the waste disposal point and follow guidelines concerning recycling

- use energy and natural resources sparingly
- avoid making unnecessary noise and disturbing people and animals in the nearby areas unnecessarily
- be considerate
- don't harm nature
- prevent fuel, waste oil and all harmful substances from spilling onto the ground and through the ground on into the ground water
- notify the acting commander immediately of possible environmental damage and near-miss situations
- notify the acting commander if you notice problems or neglect relating to environmental protection.
- follow guidelines concerning protective distances and environmental protection
- always clean up after yourself.

» *A unit always returns to collect possible trash and repair any damage it may have caused at the end of an exercise or after it.*

Everyman's right in the terrain

Anyone living in Finland has the right to:

- move through nature on foot, skis and by bicycle
- temporarily camp in such places where movement is permitted
- pick wild berries, mushrooms and flowers
- travel along waterways and swim in lakes

We do not have the right to:

- to make an open fire in the terrain without the landowner's permission
- damage or cut down growing trees
- use a motorised vehicle in the terrain without permission
- fish or hunt without permission
- pollute nature

6 Capability training

This section focuses on capability. Capability is the ability to act as required for carrying out a given task under the prevailing circumstances. Capability is made up of physical, psychological, ethical and social capability and a safe working and service environment. The different areas of capability are closely related.

6.1 Comprehensive capability

A soldier's capability is that an individual is able to - alone and together with others - act purposefully and according to the situation in different environments during war or lower level crises. A capable soldier is able to act efficiently and deliberately in battlefield conditions and in tasks assigned to him/her or his/her unit. Soldiers' capability is also closely related to attitude and motivation. Capability and readiness become action only when the individual and the unit possess the will to act in accordance with their skills. In-service safety must be maintained in all situations, both in peacetime and during a crisis.

Developing independent capability with the help of goal setting

The skill of goal setting is important in all development. It is good to know what you want, but goals must be correctly dimensioned to the time and resources available. If the bar is set too high, development is not achieved, nor does it steer a person towards the correct performance. An aim that is too low does not promote development, but rather results in regression. In addition to goals that are correctly dimensioned and if necessary divided into parts, it is also important to identify concrete





measures by which to strive towards those goals. Goals are individual and therefore it is important that each person sets up their own personal development plan. The Defence Forces offer training and tools for goal setting and personal development. A challenging working environment enables learning through feedback - whether your goal is leadership training during military service, some other special training, improving your physical fitness or just developing yourself and preparing for working life.

The service and capability folder is distributed at the beginning of service and it contains material meant for developing your own capabilities and setting goals. Goals are divided according to capability area for each training phase and for the time in the reserve. The purpose of these goals is to describe in as versatile a way as possible the capabilities and preparedness that the working environment requires of the conscript. The contents of military service enable development and achieving of goals, but in order to succeed, you need to commit to them and support your development also by setting your own goals.

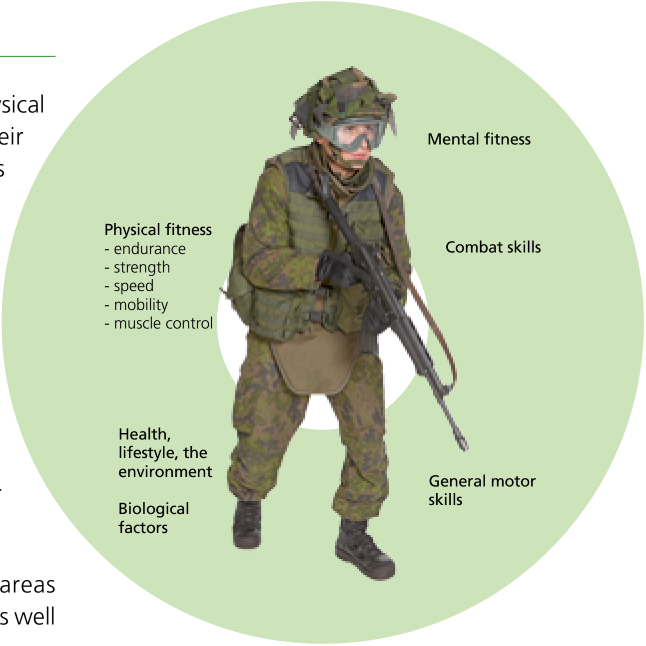
6.2 Physical capacity

Physical capability is the ability to carry out muscle work that requires fitness and skill. Physical capability consists of physical fitness and motor functions. It is also linked to mental capability and motivation.

Thanks to his/her physical capability, a soldier is able to overcome the physical demands set by the combat situation and task, to complete the task and continue fighting until victory is achieved. Physical capability is formed of characteristics such as endurance and stamina, strength, speed and skill.

Concepts of physical capability

Field fitness refers to an individual's physical fitness and marksmanship as well as their ability to navigate all battlefield conditions while equipped with mission-appropriate gear. Good field fitness requires mental fitness, which presents itself as toughness, perseverance, bravery and a desire for victory. A soldier who is fit for field duty has the skills and will to survive on the battlefield, high physical capacity and the ability to operate on the edges of his or her individual capability in different seasons and in all weather and terrain conditions.



Physical fitness consists of different areas such as endurance, strength and speed, as well as muscle control and mobility.

Endurance is the ability to resist fatigue, which depends on the supply and adequacy of energy available to working muscles. Based on energy metabolism, endurance is further divided into aerobic and anaerobic endurance.

Strength is a component of physical fitness that is needed in one form or another in all work and different tasks on the battlefield. The order to contract a muscle originates in the brain, which relays the signal through the spinal cord into the motor nerves that control the muscle. Based on the way muscles contract, strength can be further divided into isometric and dynamic strength. Based on the requirements of energy production, strength is generally divided into maximum, speed and static strength.

Speed is a component of physical fitness that is largely hereditary. It can be improved particularly through the development of strength. Speed is generally divided into basic, reaction, explosive and movement speed as well as technical speed.

The objective of physical training and education

The objective of physical training is to develop soldiers' physical capability and fitness skills through combat, marching, sports and other physically strenuous training so that after their basic training period, they are prepared for the demanding military training provided during the special and unit training periods.

The objective of fitness training is to spark a permanent interest in sports and exercise in conscripts entering the reserve. Fitness training, particularly ball and team-based games, promotes trainees' adaptation to the social operating environment of conscript service. Service exercise is also supported and complemented by leisure time sports club activities.

The aim of physical training is,
that the soldier:

1. achieves at least a satisfactory level of endurance and muscle fitness.
2. is familiar with the physiological principles of physical training.
3. is familiar with the health impacts of exercise.
4. is familiar with the prevention of risks and safety regulations related to physical training.
5. is familiar with the general principles of fitness and health exercise.
6. knows the basics of land navigation.
7. knows the principles of muscle maintenance and related basic exercises.
8. is familiar with basic training exercises that improve endurance and muscle strength.
9. knows how to swim.
10. knows how to exercise in a versatile manner (ball games, martial arts).

The conscript training period is structured as a six-to-twelve-month physical training programme systematically rotating between periods of fitness development and recovery, systematically rotating between periods of fitness development and recovery.

You can keep track of the level of physical activity in each period in the weekly agenda. You are responsible for your own proper nutrition and maintaining your muscles so that they derive optimal benefits from the exercises that you do.

The physical capability required of a soldier is based on the requirements of crisis and wartime battlefield conditions and the fitness level of conscripts. The physical capability of conscripts must be raised high enough so that upon being transferred to the reserve, they can successfully carry out their combat duties in accordance with their assigned service, branch and training branch for a period of at least two weeks in continuous combat contact and use all their reserved energy for a continuous, 3–4 day demanding decisive battle. Good physical capability is a basic requirement of military training even in peace time.

Physical training is carried out in a progressive manner so that conscripts' physical capability is at its peak at the end of their service.

At the start of the service, fitness is improved primarily through fitness training, while combat training focuses on teaching combat skills. Meanwhile march training, which is a part of combat training, and obstacle course training, which is a part of fitness training, primarily teaches various skills and techniques while also developing conscripts' endurance base.

Towards the end of conscript service, the role of combat training and march training in improving fitness increases and fitness training is increasingly carried out for the purpose of restoring muscles and for recreation.

Successful physical training also requires you to **manage your recovery and carry out restorative exercises, as well as consider nutritional factors and get adequate rest.**

The objective of physical education is to promote continuous physical activity in order to maintain and improve the physical fitness and capability of the reserve.

The aim of the training is to learn different exercise and sports skills, to develop physical fitness and provide recreation during service.

Individual objectives
The Defence Forces have defined separate objectives for physical capability, endurance, muscle fitness, land navigation skills, swimming skills, skiing/running, ball games and self-defence and martial arts. These objectives apply to conscripts serving in fitness for service category A and they are minimum objectives.

Attribute/skill	Basic training period	Special training period, NCO school, Reserve Officer School	Unit training period
Physical capability	Improvement of basic fitness and muscle fitness considering the initial level of the trainee	Improvement of physical capability from the basic training period level. Ensures the trainee's readiness	Adequate physical capability for a 3-4 day demanding decisive battle in a wartime assignment
Endurance	Improvement of basic endurance considering the initial level of the trainee	12-minute running test at least 2,400–2,600 metres depending on military branch and initial level	12-minute running test at least 2,600–2,800 metres depending on military branch and initial level
Muscle fitness	Improvement of muscle fitness considering the initial level of the trainee	Muscle fitness class min. 9 points (good)	Muscle fitness class min. 12 points (good)
Muscle maintenance	Trainees know the basic principles of muscle maintenance and related exercises	Trainees know personal muscle maintenance procedures that promote recovery	Trainees have mastered personal muscle maintenance procedures that promote recovery
Land navigation skills	Trainees know the basics of land navigation so that they can successfully complete a fairly easy 5 km track	Trainees have land navigation skills to allow them to successfully complete a fairly easy 5 km track in 75 minutes in light conditions and in 105 minutes in dark conditions	Trainees can successfully carry out the land navigation duties required in their wartime assignments
Swimming skills	Trainees can swim 25 m using any technique	Trainees can swim continuously for 200 meters in accordance with the Nordic definition of swimming skill and are familiar with the basics of water rescue	Trainees know how to use their swimming and life-saving skills in different situations
Skiing/running	Trainees know skiing and running techniques	Trainees can apply their skills in different terrain conditions	Trainees can apply their skills in different battlefield conditions
Ball games	The trainees are familiar with the rules, techniques and playing styles of different ball games so that directed game-like exercise is possible	The trainees get practice through game-like exercises so that their skills develop	The trainees know different ball games so that self-directed game-like exercise is possible
Self-defence and martial arts skills	Trainees know basic self-defence skills	Trainees have mastered basic self-defence skills	Trainees can apply their skills in different battlefield conditions
Theory training	Trainees know the principles of physical exercise and with the prevention and safety regulations related to physical training. Trainees are familiar with the general principles of fitness and health exercise.	Trainees are familiar with the prevention of risks and safety regulations related to physical training. Trainees know the general principles of fitness and health exercise.	Trainees have mastered the prevention of risks and safety regulations related to physical training. Trainees have mastered the general principles of fitness and health exercise.

6.3 Measuring physical capability

Fundamentals
The objective of measuring and monitoring **physical capability** is to determine the level of physical capability of conscripts and women carrying out voluntary military service at the beginning of their service (initial level) and monitor its development during service. Physical capability is measured using fitness tests and proficiency tests.

During the basic training period and for the purpose of some special training period exercises, trainees may be divided into different fitness groups based on their initial level. In later training, differences in fitness level may be taken into account in, for example, how the responsibility for transporting equipment is divided. A trainee with a low level of physical fitness should not be strained past his or her physical limits as doing so will not develop the trainee's fitness, but rather will diminish it further.

Official fitness tests are organised two times regardless of the length of service time. The first test is held after a medical check-up within two weeks of the beginning of service. The second fitness test is held during the unit training period within two weeks of the beginning of the period.

The test results are recorded in the conscript database. The monitoring and reporting related to physical capability plays an important role as regards national defence and national health.

The fitness tests held at the beginning of the unit training period are held primarily in wartime compositions, so that leaders and rank personnel participate in the tests at the same time. The testing sections in the conscript database also help you monitor your own fitness development during your service. Note down your initial level so you can monitor your development.

Measuring methods
Physical capability is measured with an **endurance test, which consists of a 12 minute running test, and a three-part set of muscle fitness tests.** In order to assess body composition, trainees' weight, height and waistline are measured in connection to the muscle fitness tests. Physical fitness is indicated as an index, which is calculated from the combined results of the endurance and muscle fitness tests. The index is used to determine the trainees' physical fitness class. The fitness test is not a competition, as the aim is to compare the capability of an individual conscript to his or her previous results. The first fitness test is a so-called **initial level test**, which is used to assign each trainee to a training group based on their physical fitness.

Safety instructions
Participating in fitness tests when you are ill or recovering from illness is prohibited. On the day before the fitness test, you should avoid vigorous physical activity and staying up too late. You must not have been vaccinated or donated blood in the two days prior to the test.

The fitness tests are held before meals at the end of the morning or afternoon service. The tests and other exercises that require maximum physical exertion can be started no earlier than two hours after a meal. Even then, the meal consumed should consist of light and easily digestible carbohydrate-based food.

The running test and the muscle fitness test must be held on different days.

» *If you exhibit symptoms or are unsure about whether you can complete the fitness test, please see a doctor before participating in the tests.*

Fitness classes

12 minute running test and muscle fitness tests.
Enter your target performance in the table.

Conscripts (men)

		Push-up	Crunch	Standing long jump	12-min run
Excellent	5	40	46	260 cm	3,200 m
	4.75	39	45	255 cm	3,150 m
	4.5	38	44	250 cm	3,100 m
Commend-able	4.25	37	43	245 cm	3,050 m
	4	36	42	240 cm	3,000 m
	3.75	35	41	235 cm	2,950 m
	3.5	34	40	230 cm	2,900 m
Good	3.25	33	39	225 cm	2,850 m
	3	32	38	220 cm	2,800 m
	2.75	31	37	215 cm	2,750 m
	2.5	30	36	210 cm	2,700 m
Satisfactory	2.25	29	35	205 cm	2,650 m
	2	28	34	200 cm	2,600 m
	1.75	27	33	195 cm	2,550 m
	1.5	26	32	190 cm	2,500 m
Passable	1.25	23	27	185 cm	2,225 m
	1	20	22	180 cm	1,950 m
Poor	0.75	17	17	175 cm	1,675 m
	0.5	14	12	170 cm	1,400 m
	0.25	11	7	165 cm	1,350 m

Conscripts (women)

		Push-up	Crunch	Standing long jump	12-min run
Excellent	5	32	40	210 cm	2,900 m
	4.75	31	39	205 cm	2,850 m
	4.5	30	38	200 cm	2,800 m
Commend-able	4.25	29	37	195 cm	2,750 m
	4	28	36	190 cm	2,700 m
	3.75	27	35	185 cm	2,650 m
	3.5	26	34	180 cm	2,600 m
Good	3.25	25	33	175 cm	2,550 m
	3	24	32	170 cm	2,500 m
	2.75	23	31	165 cm	2,450 m
	2.5	22	30	160 cm	2,400 m
Satisfactory	2.25	21	29	155 cm	2,350 m
	2	20	28	150 cm	2,300 m
	1.75	19	27	145 cm	2,250 m
	1.5	18	26	140 cm	2,200 m
Passable	1.25	15	21	135 cm	1,950 m
	1	12	16	130 cm	1,700 m
Poor	0.75	9	12	125 cm	1,450 m
	0.5	6	8	120 cm	1,200 m
	0.25	3	4	115 cm	1,150 m

Determining your Body Mass Index

Body composition can be calculated as follows: if a person weighs 80 kg and has a height of 175 cm, his or her body mass index is calculated as follows:

$$\frac{80\ \text{kg}}{1.75\ \text{m} \times 1.75\ \text{m}} = 26.1$$

The body mass index categories are:

- underweight: below 20
- normal weight: 20–25
- slightly overweight: 25–29
- significantly overweight: 29–32
- severely overweight: 32–35
- obese: more than 35

Waist circumference

The health risk posed by body fat (adipose tissue) depends on the anatomical accumulation of the body fat. The greatest risk of illness is associated with intra-abdominal fat. The amount of abdominal fat can be indirectly assessed by measuring the circumference of a person's waist.

The waist circumference cut-off points and definitions according to the WHO for men and women are as follows:

- Waist circumference: men below 94 cm and women below 80 cm, **no health risk.**
- Waist circumference: men 94–102 cm and women 80–88 cm, **slightly increased health risk.**
- Waist circumference: men over 102 cm and women over 88 cm, **significantly increased health risk.**

6.4 Land navigation and map reading training

Some land navigation tips:

Make proper use of time
- think first and only then make decisions
- be meticulous
- run when you are sure of the route

Plan the route that you intend to use
- if you are unsure, walk along clearly distinguishable terrain features, such as paths, ditches and lines
- running along a path is faster than rummaging around in the thicket
- whether it's faster to climb over a hill or make your way around it depends on your fitness level
- run over clear sections, slow down when map reading becomes difficult

Think in advance about how you will notice if you lose your bearings
- move from one intermediate target to the next
- read ahead on the map so that you know what's coming and take your bearings according to what you see around you
- measure distance
- choose a stopping point for your route: "if I go over the stream, I've gone too far"

Work systematically
- control points are not hidden, they are used to mark places, so look for places
- if you are in the right area, canvas the area systematically
- if you are unsure of the area, return to the last point of terrain you are sure about and try again
- do not panic, think

Navigate by yourself
- running after someone else is a sure-fire way to get lost
- doing it yourself is the only way to learn

The objective of land navigation training is to ensure that every conscript can independently carry out the land navigation duties required in their wartime assignments.

Land navigation is navigating from point to point along an optimal route with the help of a map and a compass. The points are called control points.

Land navigation is an important military skill as well as a challenging sport and test of skill. It also effectively develops physical endurance, motor functions and the ability to move effectively in different terrains. Land navigation requires both physical and mental qualities.

The most important tool used in land navigation is a **map**. Navigating terrain is based on map reading and interpretation as well as comparing the map to the terrain. A compass is primarily used to verify direction; land navigation rarely involves navigation based solely on a compass heading since the maps used in Finland are accurate and of high-quality while Finnish terrain is highly variable. Land navigation skills are the sum total of a number of different skills. A navigator must possess at least the following basic knowledge and skills:
- the ability to read a map and the terrain, i.e. knowing how different terrain features are marked on a map
- the ability to hold a direction while navigating the terrain
- the ability to measure and evaluate distances
- the ability to determine your own location and the coordinates of different locations.
- Navigation exercises provide the basis for carrying out service time navigation tasks as well as the readiness to take up orienteering as a hobby in the reserve.

The main map used by the military sector for navigating terrain is a 1:50,000 scale tactical map. The map is always kept in a plastic map pocket or plastic bag in order to prevent exposure to water. Notes should be added to the map only using a pencil or a marker on the plastic map film. Adding notes to the map that reveal troop movements is prohibited. When reading a map, it should be rotated so that the top of the map points north.

Meaning of map colours

Brown
Terrain contours; altitude contours, roads

Blue
Bodies of water and marshes; lakes, rivers, ditches, springs

Yellow
Open areas; fields, meadows, logging areas

Black
Constructions, roads, paths, rocks, cliffs

Green
Vegetation, delaying forest

Grey
Surface rock

Tactical map 1:50,000 © 28/MYY/07



Map markings

Liikenneverkot ja johtoyhteydet Trafiknät och ledningsförbindelser
Traffic networks and mains

I a luokan moottoritie, tienumero I a klassens motorväg, vägnummer
I a class motorway, road number

I b luokan yksi- tai kaksiajoratainen autotie, tunneli
I b klassens bilväg med enkel eller dubbel körbana, tunnel
I b class road, single- or dual-carriage, tunnel

II a, b luokan kaksikaistainen autotie, silta
II a, b klassens bilväg med två körfält, bro
II a, b class road, double-lane, bridge

III a, b luokan yksikaistainen autotie III a, b klassens bilväg med ett körfält
III a, b class road, single-lane

autoliikennealue biltrafikområde motor traffic area

ajotie, ajopolku körväg, körstig drive, drive path

polku, pitkospuut stig, spång path, causeway

pyörätie, talvitie cykelväg, vinterväg bicycle path, winter road

rautatie: sähköistetty ja sähköistämätön järnväg: elektrifierad och ej elektrifierad
railway: electrified and not electrified

lautta tai lossi färja eller linfärja ferry or cable ferry

laivaväylä, nimelliskulkusuunta, kulkusyvyys farled, huvudriktning, leddjupgående
ship channel, general direction, draught

venereitti båtled boat route

viittoja prickar spar buoys

poijuja bojar buoys

reunamerkkejä randmärken edge marks

majakka, kummeli, linjamerkki fyr, kummel, ensmärke
lighthouse, cairn, leading beacon

kaasujohto gasledning gas pipe

sähkölinja, pylväs elledning, stolpe electricity line, pole

lentokenttä flygfält airport

Rakennukset Byggnader Buildings

taajama, varastoalue tätort, lagerområde built-up area, storage area

kirkko, hautausmaa kyrka, begravningsplats church, cemetery

asuin-, loma-, liike- ja yleisiä rakennuksia
bostads- och fritidshus, affärer samt allmänna byggnader
residential, holiday, commercial and public buildings

tehdas-, talous- ja varastorakennuksia
fabriks- och ekonomibyggnader samt lager
factory buildings, agricultural buildings and warehouses

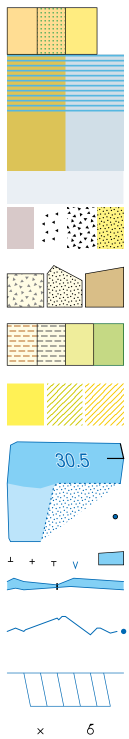
vesitorni, savupiippu, radiomasto
vattentorn, skorsten, radiomast
water tower, chimney, radio tower

aita, portti, puurivi, hiihtohissi stängsel, port, trädrad, skidlift
fence, gate, row of trees, ski lift

tuulivoimala, näkötorni, muistomerkki, tulentekopaikka
vindkraftverk, utsiktstorn, minnesmärke, lägereldsplats
wind power plant, observation tower, monument, place for camp fire

Merkkienselite Teckenförklaring Legend

Maasto Terräng Terrain



pelto, puutarha, niitty, metsäinen alue (valkea)
åker, trädgård, äng, skogbevuxet område (vitt)
arable land, garden, meadow, forested area (white)

vaikeakulkuinen suo: puuton, metsäinen
svårframkomlig myr: kal, skogbevuxen
marsh, difficult to traverse: treeless, forested

helppokulkuinen suo: puuton, metsäinen
lättframkomlig myr: kal, skogbevuxen
marsh, easy to traverse: treeless, forested

soistuma försumpad mark paludified area

avokallio, louhikko, kivikko, hietikko
kalt berg, blockfält, stenfält, sandfält
exposed bedrock, boulder field, rock field, bare sand

louhos, sorakuoppa, turvetuotantoalue
stenbrott, grustag, torvtäkt
quarry, gravel pit, peat production area

kaatopaikka, täytemaa, urheilu- ja virkistysalue, puisto
soptipp, fylljord, idrotts- och rekreationsområde, park
landfill, earth fill, sports and recreation area, park

avoin vesijättöalue, avoin metsämaa, varvikko (Lapissa)
öppet tillandningsområde, kalhygge, rismark (i Lappland)
open reliction area, open forest, brush (in Lappland)

rantaviiva, vesialue, vedenpinnan korkeusluku, laituri
strandlinje, vattenområde, vattenytans höjd över havet, brygga
shoreline, water area, altitude of water surface, dock

maatuva vesialue, epämääräinen rantaviiva, tulva-alue, kaivo
upplandning, obestämd strandlinje, översvämningsområde, brunn
reliction, indefinite shoreline, flood area, well

kiviä, vesikuoppa, allas stenar, vattengrop, bassäng stones, water hole, basin

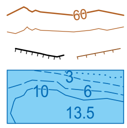
joki, leveys yli 5 m, pato älv, bredd över 5 m, damm river, width over 5 m, dam

puro, leveys 5 - 2 m, lähde
bäck, bredd 5 - 2 m, källa
brook, width 5 - 2 m, spring

puro tai oja, leveys alle 2 m
bäck eller dike, bredd under 2 m
brook or ditch, width under 2 m

luonnonmuistomerkki, muinaisjäännös naturminnesmärke, fornlämning
natural monument, ancient relic

Korkeus-ja syvyystiedot Höjd- och djupdata Heights and depths

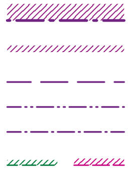


johtokäyrä (20, 40, 60 m) ledkurva index contour
pääkäyrä (5, 10, 15 m) huvudkurva regular contour

jyrkänne, luiska brant, sluttning steep, slope

syvyyskäyriä (1.5, 3, 6, 10, 15, 20, 25 m), syvyyspiste
djupkurvor (1.5, 3, 6, 10, 15, 20, 25 m), djuppunkt
depth curves (1.5, 3, 6, 10, 15, 20, 25 m), depth point

Rajat Gränser Borders



valtakunnan raja riksgräns international boundary

rajavyöhykkeen takaraja yttre gräns för gränszon
rear boundary of boundary zone

aluevesiraja territorialvattengräns limit of territorial waters

maakunnan- tai lääninraja landskaps- eller länsgräns regional or provincial boundary

kunnanraja kommungräns municipal boundary

luonnonsuojelu-, erityisalueen raja gräns för naturskyddsområde, specialområde
conservation area, special area boundary

Paikannimistö Ortnamn Place names

Asutusnimet Ortnamn Settlement names

Björkdal

Halosenkylä

Lauttasaari

Huuhkaja

KRISTINESTAD

KEMIJÄRVI

HELSINKI

Maastonimet Terrängnamn Terrain names

Papinsaari

Hanhiniemi

Högberget

Karhukangas

Isosuo

Paljakka

Vesistönimet Namn på vattendrag Watercourse names

Lumipuro

Vuentokoski

Teno

Högbensjön

Saarijärvi

Päijänne

Selitteet Förklaring Specification

Terveyskeskus	Urheilupuisto	Luonnonsuojelualue	Ampuma-alue
Hälsocentral	Idrottspark	Naturskyddsområde	Skjutområde

Kartan tiedot perustuvat Maanmittauslaitoksen maastotietokantaan. Maastotietokannan tietoja päivitetään 5 - 10 vuoden välein, ja karttalehden alueella voi olla eri ajankohdilta olevaa tietoa. Tiestön tiedot ovat painovuotta edeltävältä vuodelta. Kartassa olevista puutteista ja virheistä voi antaa palautetta Kansalaisen Karttapaikalla osoitteessa <www.karttapaikka.fi>. Vesialueiden syvyystiedot pohjautuvat aineistoihin, joiden tekijänoikeudet omistaa Suomen ympäristökeskus tai Liikennevirasto. Merenkulkuun liittyvät tiedot perustuvat merikarttaan. NAVIGOINNISSA ON KÄYTETTÄVÄ MERIKARTTOJA.

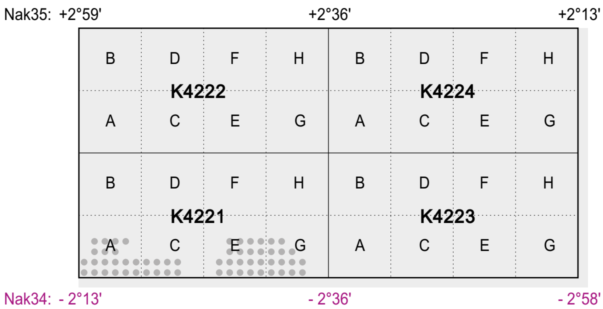
Kartuppgifterna bygger på Lantmäteriverkets terrängdatabas. Uppgifterna i terrängdatabasen uppdateras med 5 - 10 års mellanrum och på ett kartblad kan finnas uppgifter från olika tidpunkter. Väginformationen är från året före tryckåret. Vid eventuella fel eller brister i kartan kan respons ges på Kartplatsen för alla på adressen <www.kartplatsen.fi>. Uppgifterna om vattendjupet grundar sig på material som Finlands miljöcentral eller Trafikverket har upphovsrätten till. Den nautiska informationen bygger på sjökort.
FÖR NAVIGATION SKALL SJÖKORT ANVÄNDAS.

The map data are based on the topographic database of the National Land Survey of Finland. The data in the topographic database are updated every 5 to 10 years, and the information on a map sheet can derive from different years. The road data are from the year preceding the year of printing. Feedback on any errors or flaws that the map may contain can be given at the Citizen's Mapsite at <www.karttapaikka.fi>. Data on water depths in water areas are based on material owned by copyright by the Finnish Environment Institute or the Finnish Transport Agency. The nautical data are based on a nautical chart.
FOR NAVIGATION NAUTICAL CHARTS MUST BE USED.

Teknisiä tietoja   Tekniska data   Technical data

Koordinaatisto Koordinatsystem Coordinate reference system:	ETRS89 (WGS84)
Ellipsoidi Ellipsoid Ellipsoid:	GRS 80
Karttaprojektio Kartprojektion Map projection:	ETRS-TM35FIN
Keskimeridiaani Medelmeridian Central meridian:	27°E / 500 000 m
Korkeusjärjestelmä Höjdsystem Vertical reference system:	N60

● Magneettisia häiriöitä Magnetiska störningar Magnetic disturbance

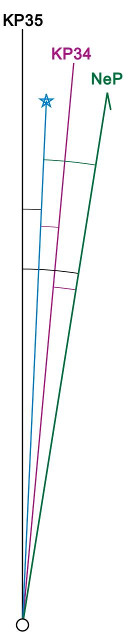


KP35 Karttapohjoinen Kartnorr Grid North 27°E

KP34 Kaistapohjoinen Zonnorr Zone North 21°E

NeP Neulapohjoinen Kompassnorr Magnetic North

Napapohjoinen Polnorr True North



Nek 2007.0	Neulaluvun korjaus Nåltalskorrektion Magnetic Correction	+6°26'	+107ᵛ	+114 mils
Nak35 Nak34	Napaluvun korjaus Poltalskorrektion True North Correction	+2°36' - 2°36'	+43ᵛ - 43ᵛ	+46 mils - 46 mils
Kok35 Kok34	Kokonaiskorjaus Totalkorrektion Total Correction	+9°03' +3°50'	+150ᵛ +64ᵛ	+160 mils +68 mils
	Vuotuinen muutos Årlig förändring Annual variation	+0°10'	+2.8ᵛ	+3.0 mils

Ennen kartasta otetun suunnan käyttämistä kulkusuuntana maastossa on sen kompassisuunnasta vähennettävä yllä laskettu kokonaiskorjaus (Kok).

Innan den på kartan mätta riktningen används i terrängen skall ovan angivna totalkorrektion (Kok) subtraheras från kompasskursen.

Before the measured grid azimuth is used in the terrain the above-indicated total correction (Kok) must be subtracted from the bearing.

Kartalla on kuvattu kaistan TM35 mukaisten mustien koordinaattiristien lisäksi punaisella värillä kaistojen TM34 ja TM35 mukaiset koordinaattiruudukot.

Förutom svarta koordinatkors i zonen TM35 har på kartan avbildats koordinatrutorna i zonerna TM34 och TM35 i rött.

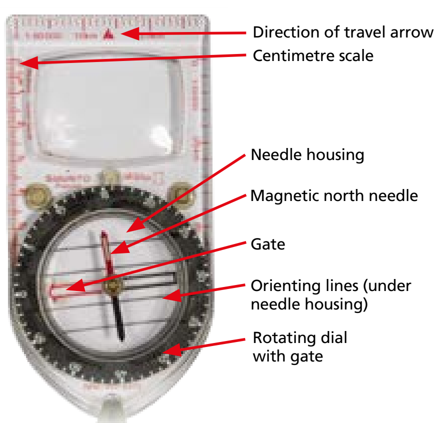
On the map the grid intersections in zone TM35 are shown in black and the grids in zones TM34 and TM35 in red.

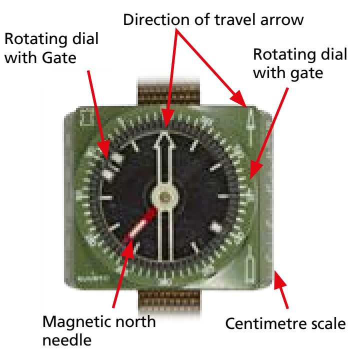
Taking a bearing

1. Place the long side of the compass on the map so that it runs from the top of the fell to the abandoned hut with the direction of travel arrow pointing to the direction of travel.
2. Rotate the needle housing until the gate points north according to the map.
3. Hold the compass horizontally in your hand and turn calmly until the red tip of the compass needle settles in the gate. The compass' direction of travel arrow is now pointing to the direction of the abandoned hut.

The compass needle is a magnet, which is vulnerable to interference from metallic objects. Because of this a compass should not be used in the vicinity of vehicles or high-voltage electrical cables. Even small metal objects may cause interference if they are too close to the compass.

Parts of a compass:

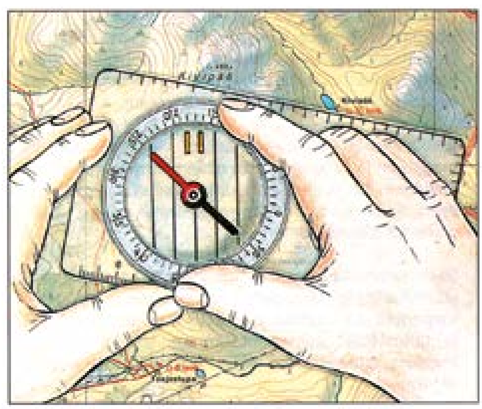




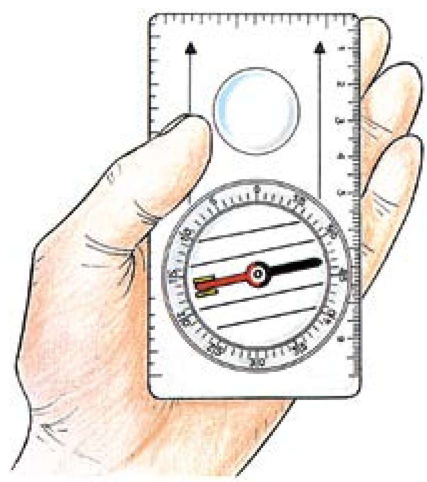
1



2



3



Measuring coordinates from a map

On a tactical map, geographic coordinates (WGS84) are indicated using blue uniform lines (for example 24°00’). The edges of the map also include local time corrections (for example -24m00s).

Basic coordinates are indicated using a rectangular kilometre grid (red). Military grid reference system (MGRS) designations and coordinates are marked on the edge of the map so that hundreds and thousands of kilometres are indicated using a smaller font (see Figure 1). The number and the associated letter (for example 34V) designate the MGRS zone (= zone 34, latitude band V) and the letter pair FM (in zone 34) designates the 100 km square. On the 24th meridian east the zone is 35V. MGRS markings are used to report grid-based locations.

Coordinates are usually measured on the map with a precision of ten metres, which means that easting (E) and northing (N) coordinates are indicated as a series of four numbers each (with the last number indicating tens of metres). Coordinates are used to indicate both coordinate and grid-based locations.

The height coordinate is indicated as metres rounded off to the nearest ten metres. How to determine coordinates on a tactical map (1:50,000):

- Place the coordinate scale onto the location to be determined (a notable rock) as indicated in the figure (2).
- Read the first two digits of the E coordinate from the number indicated on the edge of the map – the next red coordinate line west of the location to be determined. Only read the large numbers, for example 66.
- Read the last two digits of the E coordinate from the horizontal range of the coordinate scale, in this case giving you an E coordinate of 6619.
- Read the first two digits of the N coordinate from the number indicated on the edge of the map – the next red coordinate line south of the location to be determined. Only read the large numbers, for example 56.
- Read the last two digits of the N coordinate from the vertical range of the coordinate scale, in this case giving you an N coordinate of 5646.

Figure 1

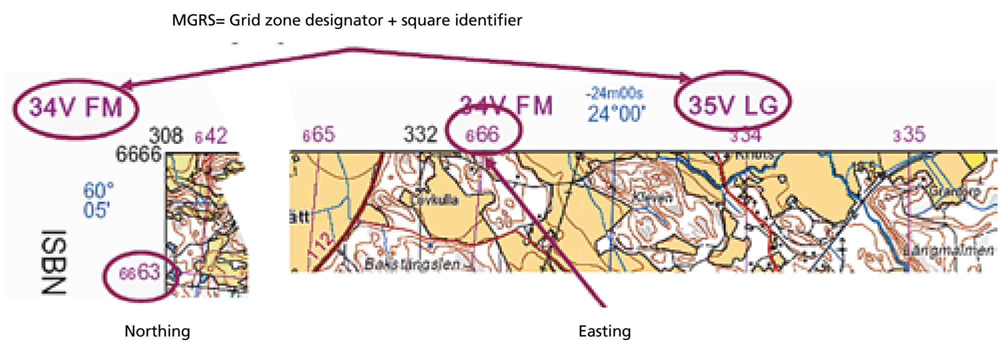


Figure 2

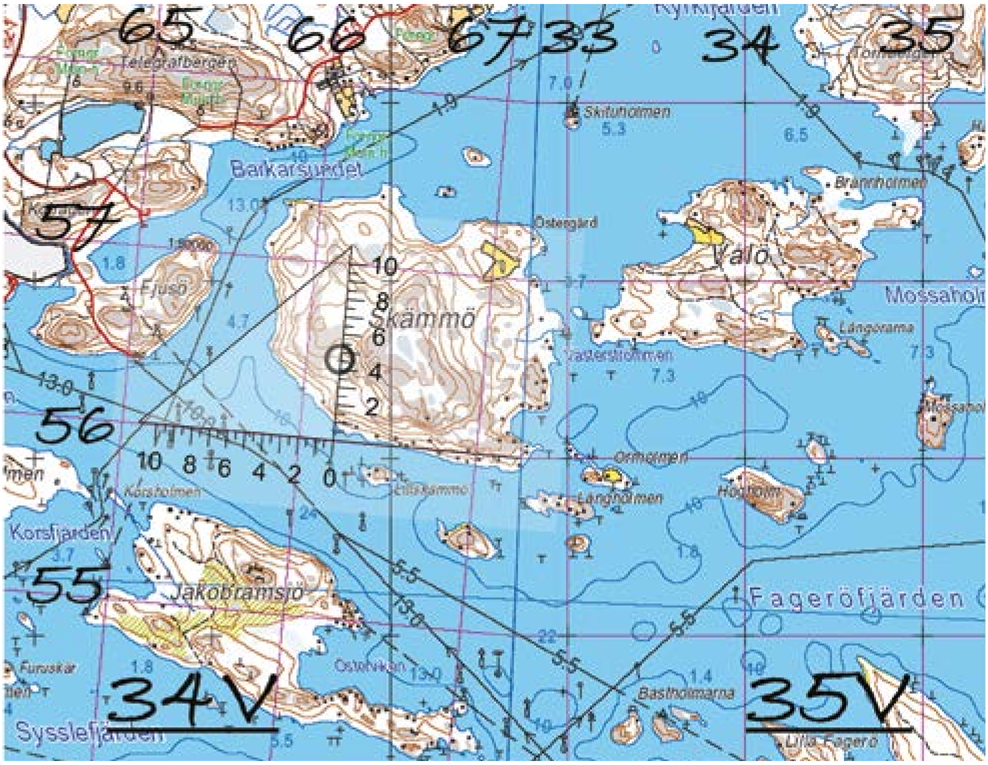
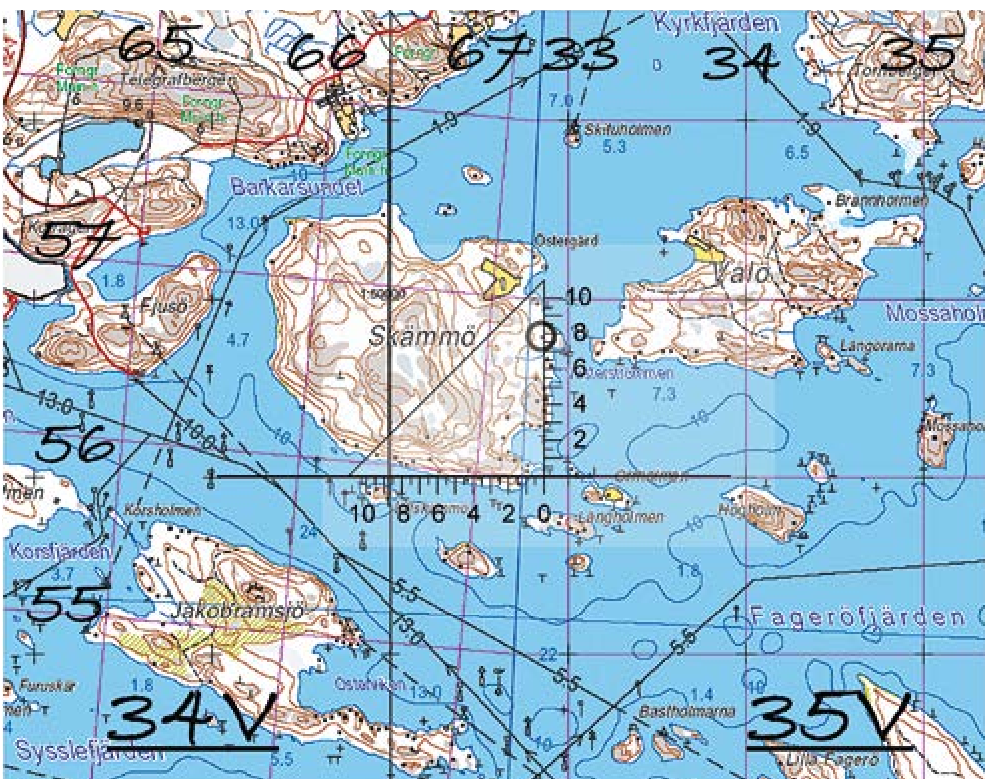


Figure 3



The location can be communicated in two different ways.

When reporting a coordinate-based location, add the grid-zone designation from the edge of the map (34) in front of the coordinates, adding the letter N to designate the northern hemisphere. As such, the coordinate-based location of the location determined above (the rock) is 34N 6619 5646.

When reporting a grid-based location (MGRS), you need to add the grid-zone designation and the 100 km square identification in front of the coordinates. The coordinate values are always rounded down. As such, the grid location of the location determined (the rock) is 34VFM 6619 5646. The grid-location is unambiguous.

When operating on the edge of a zone, the grid location is amended by drawing, providing an alignment point for the coordinate scale. In the figure (see figure 3) the MGRS location of the target (building) in the area of zone UTM35 is 35VLG 3287 5678.

6.5 Running and skiing

Running

Running is a basic form of exercise in fitness training. It is a simple and effective way to develop basic physical fitness as well as endurance. Running exercises can be run at constant speed or at variable speed, for example as speed playing exercises. Variable running exercises are more effective at developing physical fitness than monotonous and one-sided exercises.

Proper **running technique** requires coordination between the nervous system and the muscles in order to make running as efficient and economical as possible. On long distances of over 5 kilometres, the economic efficiency of running becomes an important factor, with uneconomical, for example bouncy, running styles becoming increasingly tiring. Proper running technique also helps prevent injuries; It is difficult to provide universal instructions on what kind of running style is best-suited to each individual.

Instead, each person should strive to find their own natural and enjoyable way of running. On one hand, running style and technique are affected by the characteristics of the runner, such as body structure, physical fitness and genetics, while on the other hand external conditions, such as the running surface, climate and footwear, also play a role.

Running routes should be planned primarily along soft surfaces, such as fitness trails, forest trails and peaty terrain, as extensive running on hard surfaces, such as asphalt, increases the risk of stress injuries.

Examples of diverse running exercises:

Exercise	Objective	Performance
Even speed, easy pace	Developing basic endurance	- try to maintain the same speed all the time - same pulse all the time - pulse 120-160/min - speed 4.30-7 min/km - progress at discussion speed - walk uphill if necessary - must break a sweat - as fitness increases, even speed running can continue for long distances
Even speed, brisk pace	Increasing speed endurance - speed endurance refers to the ability to move with great energy for a long time - is a capability that can be developed, which determines e.g. the Cooper's test result	- try to maintain the same speed throughout - pulse may rise slightly towards the end - pulse 150-170/min - speed must cause sweating and breathlessness
Playing with speed	Increasing fastness and speed endurance as well as maximum endurance - high training power - maximum endurance exercises improve competitive ability and require a good fitness level	5 km run, e.g. as follows: - brisk walking 500 m - jogging 1,000 m - increase pace at intervals so that speed increases for 100 m ending in full speed, walking in between - distance of haul 3 x 100 m - downhill relaxed with long strides and uphill with short quick strides, even stretches padding strides 200 m - quick dashes at full speed, walking in between dash distance 3 x 80 m - light running 500 m - walking 500 m Exercise can include longer hauls, leaps etc. In playing with speed exercises, you can vary the effect and distance as you wish, taking into account the principle stated above. The harder the effect of the exercise the longer it takes to recover.

Skiing



Finnish soldiers have a responsibility to uphold the traditions of the flying ski patrols of the Winter War. After all, skiing is still one of the most important basic skills of winter warfare.

The objective of the Defence Forces' ski training is to provide trainees with basic skiing knowledge and skills that facilitate economical movement on skis in various battlefield conditions.

The objective of ski training is to ensure that soldiers can carry out a 10 km ski march in two hours and an approximately 30 km overnight motorised and ski march while equipped in full fighting load and maintaining battle readiness.

In addition to this, the aim of ski training is to develop the physical fitness and muscular endurance of conscripts.

Conscript leaders are taught the basics of leading and teaching skiing exercises as well as maintaining unit capability and training readiness during ski marches.

Conscript leaders lead their unit in combat and movement.

The objective of ski training is to also promote the establishment of a permanent skiing habit in the reserve.

Good skiing technique means the ability to ski smoothly while maintaining control of the situation in different terrains and conditions. With good technique the skier can enjoy moving on skis.

The only way to learn good technique is to ski in different terrains and on varying tracks.

Repeatedly practising the motions required in skiing improves performance, lowering the amount of energy required. Good technique is smooth and quick and appears effortless. Good technique can also be achieved with individual styles.

The principles of economical skiing

- good balance,
- smooth and continuous movement,
- long and accelerating motions,
- effective utilisation of the torso when pushing,
- properly timed shifting of weight to the skis' gliding surface
- correct pacing and timing of accelerations,
- good rhythm and relaxation.

Waxing is simple
Proper waxing before skiing makes skis glide better while also providing grip. This makes learning skiing techniques easier and the skiing itself more pleasant. Regular waxing also keeps the skis in good working condition.

Ski maintenance requires glide wax, kick wax, an iron, a scraper, a cork, wax remover and sand paper (grit 150). Ski maintenance can be carried out in pairs. Before waxing, clean the skis using wax remover or a metallic scraper. Before proceeding, let the wax remover evaporate off the skis for a few minutes.

Melt or rub general glide wax onto to the glide surfaces of the skis. After this, melt the glide wax into a smooth layer on the ski surface. Keep the iron moving at all times to prevent burning the surface of the skis. Set the iron to the temperature for **wool or at two points.**

Let the wax cool off for approximately 5-10 minutes. Scrape off any excess glide wax first from the groove, then from the sides and finally from the glide surfaces. Excess wax on the surface of the skis collects dirt, reducing the gliding performance of the skis.

The grip of the skis can be improved through the application of kick wax. Start by coarsening the kick zone with sand paper, from a distance of 20 cm from the back and 30 cm from the front of the boot binding. The coarsening improves the retention of the kick wax on the skis.

After this, apply 2-4 thin layers of kick wax chosen based on expected temperature range and conditions on to the kick zone. Melt the first layer using an iron. This procedure also improves the retention of the kick wax on the skis. Smooth out the other layers with your palm or with the help of a cork. The intended temperature range of kick wax is always listed on the wax container.

The maintenance of **waxless skis** requires glide wax, a flat iron, an iron scraper, wax remover and sand paper (grit 150). Waxless skis do not require kick wax, as their grip can be improved simply by coarsening the kick zone with sand paper. During the thaw, add 3-4 layers of silicon on to the kick zone. Let the skis dry for 5-10 minutes between applying each layer. Glide wax is applied to waxless skis in the same way as to normal skis.

6.6 Exercise recommendations, recovery and safety

Exercise recommendations

Start exercising carefully and listen to your body. Keep in mind that every exercise should include a warm-up, a cool-down and muscle maintenance. Increasing exercise will raise your fitness to a good level in as little as 3–6 months, so conscript service provides a good opportunity to start a lifetime exercise routine. If you stop exercising after service, your fitness will decline faster than it improved. Good physical fitness requires regular exercise.

Continue to maintain your physical fitness also after military service:

- exercise at least two, but preferably **3-5 times a week**
- the length of a single exercise session should be at least 20- 60 minutes
- exercise at an intensity that gets you out of breath and makes you sweat
- exercise intensity should be 60–90% of your maximum heart rate
- if you do not know your maximum heart rate, subtract your age from the number 220
- in other words, a 20-year-old should exercise at a heart rate of over 120 beats per minute in order to ensure beneficial impact on the circulatory and respiratory system
- remember to exercise diversely in order to improve your endurance, muscle fitness, speed, muscle control (skills) and mobility
- mastering a wide range of skills makes exercise more enjoyable
- in addition to high-intensity ball game exercise, it is recommended that you do a basic endurance exercise (such as walking, Nordic walking, running or skiing) lasting over an hour at least once a week

to ensure optimal development of the respiratory and circulatory system
- good muscle fitness is a prerequisite for a functional musculoskeletal system and good working ability.

Be open-minded and try out different types of sports and exercise. Don't just settle on a single sport, exercise diversely.

Recovery

Recovery means the repairing of the changes that physical activity has caused to your body and metabolism. **Body development does not take place during physical activity, but during the recovery that follows.** Continuous and monotonous exercise without resting periods is an ineffective way to improve fitness.

The following factors contribute to recovery:
- fitness exercises should always be preceded and followed by a warm-up and cool-down (10-15 minutes)
- regular muscle maintenance (15–30 minutes/exercise)
- maintaining hydration, any exercise that takes longer than an hour should include hydration
- diverse nutrition, lots of carbohydrates and little fat, at least two warm meals a day
- periods of light and restorative exercise between periods of heavy exercise
- adequate rest/sleep, at least 78 hours a day during recovery periods, alternating periods of activity and rest
- a varied and stimulating life

Smoking and the consumption alcohol, etc. slows down recovery.

Safety

1. Listen to your body and react accordingly
   - start exercising slowly and progressively
   - exercise based on the limits of your body and fitness level
   - stop the exercise if you are not feeling normal
2. Do not exercise when you are ill or recovering from illness
3. Avoid exercising for two hours following a meal
4. Avoid alcohol and smoking prior to and during exercise
5. Consider your surroundings and conditions
   - freezing temperatures
   - high temperatures
   - dress and adapt your level of activity according to the conditions
   - proper footwear
6. Avoid exercise after donating blood or getting vaccinations (one day)
7. Active muscle maintenance prevents stress injuries.

6.7 Muscle maintenance and stretching

Muscle maintenance

Muscle maintenance means all the procedures and methods that aim to help muscles, the nerve-muscle system and the psyche recover from different levels of physical activity. The procedures can be carried out by you personally or by someone else.

Stretching

Stretching is the most important method of personal muscle maintenance. Its purpose is to prepare the muscles and the body for upcoming physical activity as well as help muscles recover after exercise with properly focused and calm stretches that return muscles to their resting length. Stretching can be divided into active stretches and passive stretches (partner stretching).

The importance of regular stretching in avoiding stress injuries and accidents is undeniable. It is clear that tensed, tight and congested muscles are at a much higher risk of various injuries as well as tendonitis and tenosynovitis than stretched and recovered muscles.

Appropriate stretching technique and duration depend on the purpose of the stretching. Stretching can be divided into the following three types:

1. **As a warm up, dynamic stretching before physical activity.** The objective of the stretching is to **open up** the muscles that will be actively used in physical activity. The duration of the stretches is fairly **short, 2–5 seconds** each and can be repeated several times.
2. **Recovery stretching after physical activity.** The objective of the stretching is to start the recovery process and ease the muscles back to their resting length. The duration of the stretches may be **15–30 seconds**; under no circumstances should you stretch past the point where you start feeling pain. Recovery stretching can also be continued later; 1–3 hours after the physical activity has ended.
3. **Separate stretching to improve flexibility and mobility.** The objective of the stretching is to increase the flexibility of the muscles and the mobility of the joints. This type of stretching is best accomplished by doing **long stretches with a duration of up to two minutes** and repeated stretches from one extreme position to another. You can stretch the same muscle group multiple times, but be sure to alternate, i.e. stretch another muscle group before going back to stretching the most tense muscle groups.

Energy consumption and recovery in different situations and exertion:

Exertion/ performance	Consumption	% of maximum oxygen intake	Pulse	NB	Recovery	Intensity factor
Rest, 8 hours of sleep	1 kcal / min 480 kcal					
Basic metabolism	2,000–2,500 kcal / 70 kg, 1,900–2,100 kcal / 55 kg			Clothed, air temperature		
Daily chores, base service	2–5 kcal / min	25 %				**1**
Light exercise - exercise on the side; gym class, competitions - close order - weapons handling	5–8 kcal / min	30–35 %	80–120	50-70% of energy from fat	Less than 1 hour	**2**
Medium exercise - brisk walking - jogging - bicycling - free swimming - muscle fitness training - orienteering training - ski/foot march - physical combat training - exceptionally hard work - ball sports	10–15 kcal / min	40–60 %	120–150	½ of the energy from carbohydrates, amount decreases towards the end	Hours	**3**
Heavy exercise - athletes' training - obstacle course training - competition performance / hard march - hard combat training - several physical exercises in one day	20 kcal / min	70–85 %	Over 150-max	A top marathon runner uses (2h) 2,600-2,800 kcal more than basic metabolism	10–46 hours	**4**
Intense training lasting several days - live exercise - firing exercise - march lasting several days	Total consumption 3,500-4,000 kcal/ day	30-60 %	80–150	Refilling of energy supply slows down during an exercise lasting several days	Days	**5**

The 10 commandments of muscle maintenance and stretching

1. Stretch regularly and diversely
2. Reserve enough time
3. Remember to warm up
4. Adopt the correct and properly focused stretching position and stretch the muscle calmly, not by jerking. The duration of the stretch depends on the objective of the stretching
5. Keep in mind proper breathing technique: take slow, deep breaths, do not hold your breath
6. Be loose and relax your muscles
7. Enjoy the stretching sensation, close your eyes if you want
8. Do not compare yourself to others when stretching
9. Do not over-stretch to the point of pain
10. Do not neglect moves that feel unpleasant



Muscles at the back of the shoulder joint



Muscles at the back of the shoulder joint, extensor



Transversus abdominis, side stretch



Quadriceps



Hamstrings



Thigh adductors



Inner thigh muscles



Gluteus muscles



Neck muscles



Long back muscles



Forearm muscles



Hamstrings



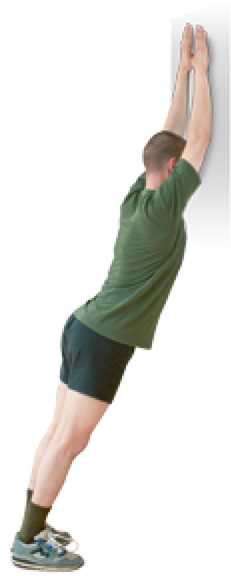
Hip flexors



Achilles tendon



Peroneus muscle



Pectoral muscles and arm muscles

Treating sports injuries using the ICE method

Sudden sports injuries are treated using the so-called ICE method, which every instructor and trainee must master. Quickly initiated and meticulous ICE treatment makes it easier to diagnose injuries and define the need for care and is crucial for speeding up recovery.

Procedures in sudden sports and exercise related injuries

1. Begin ICE treatment immediately
   - **Ice:** apply something cold, such as snow, ice or bag of frozen food to the injured area
   - **Elevation:** keep the injured body part raised above the level of the heart
   - **Compression:** apply compression to the affected area with, for example, a bandage, towel or shirt

First-aid must be started immediately **within the first 30 seconds** following the injury, after which

2. The patient is taken to a medical check-up
   - diagnosis of the injury and
   - determination of care needs

3. After this follow-up treatment procedures are initiated

6.8 The Defence Forces' sports badges

During their service, conscripts can earn sports badges in the areas of shooting, skiing, exercise (running), orienteering, swimming (incl. life-saving) and athletics. Ask your instructor which activities and exercises may make you eligible for sports badges.

The individual results limit requirements that make you eligible for sports badges are defined in the administrative norms: PUOLUSTUSVOIMIEN VALMENNUS- JA KILPAILUTOIMINTA.

The table presents some examples of the most often reached results limits.

6.9 Conscript Exercise Clubs

The Finnish Military Sports Federation arranges free time exercise club activities for conscripts in cooperation with the conscript committees. The purpose of activities, which began in 1987, is to improve the satisfaction and service motivation of conscripts. The aim is:

- familiarisation with new exercise forms,
- provides an opportunity to participate in led sports club activities,
- teaches skills that may be of use also in civilian life,
- lowers the threshold for exercising and
- promotes permanent exercise habits.

Conscript exercise clubs function on conscripts' terms. Activities are based on what conscripts want and are interested in. The most popular are ball sports, fitness training, combat sports and different basic exercise forms.

An appointed staff member is responsible for the overall club activities, but conscripts steer their own activities in the different clubs. During their service conscripts have the possibility to become exercise club instructors. The

SPORTS BADGE	III	II	I	Championships	Finnish Championships
Marksmanship badge					
- Marksmanship skills test	5–8 hits	9–10 hits	11–12 hits	places I–III	
- Military Finnish Championships					
Skiing badge					
- Brigade (equiv.) competition	40 %	20 %	5 %		
- Military Finnish Championships		40 %	15 %	places I–III	
- Military World Championships				places III–IV	places I–II
- Finnish Championships, youth series				places II–III	place I
Fitness badge					
- 12-minute running (men)	2,200 m	2,600 m	3,000 m		
- 12-minute running (women)	2,000 m	2,400 m	2,800 m		
Orienteering badge					
- Brigade (equiv.) competition	50 %	20 %	5 %		
- Military Finnish Championships		40 %	15 %	places I–III	
- Military World Championships				places II–IV	places I–II
- Finnish Championships, youth series				places II–III	place I
Swimming badge					
– 100 m free style		01:06,50	01:01,50	56,50 s	54,50 s
– 400 m free style	No time limit	05:28,00	04:58,00	04:28,00	04:12,00
– 100 m breast stroke		01:27,00	01:19,00	01:13,00	01:09,00
– 100 m back stroke		01:22,00	01:14,00	01:07,00	01:02,00
– 100 m butterfly stroke		01:18,00	01:09,00	01:02,00	59.50 s
Sports badges					
– 100 m running		11.70 s	11.25 s	10.85 s	10.50 s
– 400 m running		53,10 s	50,90 s	49,00 s	46,80 s
– 1 500 m running		04:13,00	03:59,00	03:50,00	03:42,00
– 3 000 m running		09:10,00	08:40,00	08:17,50	07:58,00
– marathon		03:49,00	02:38,00	02:26,00	02:17,30
– long jump		610 cm	660 cm	710 cm	775 cm
– high jump		180 cm	192 cm	207 cm	221 cm
– shot put		12.50 m	13.70 m	15.90 m	18.70 m
– javelin		55.00 m	63.00 m	72.50 m	77.50 m

Military Sports Federation annually arranges 8 national training events for conscript exercise club instructors.

Additional information is available from the conscript committee and the Military Sports Federation's website sotilasurheilu.fi.

Finnish Military Sports Federation competition activities for conscripts

The Military Sports Federation arranges physical exercise events and competitions for conscripts in the following disciplines: biathlon orienteering, golf, frisbee golf, climbing, air gun shooting, judo, boxing, wrestling, floorball, inside rowing, military bench press, tennis, futsal, swimming, military cross training and pankration.

6.10 Provisioning and nutrition

Going from school to conscript service means an increase in physical activity. Usually the significant increase in physical activity also requires changes in eating habits. After all, nutrition plays a key role in maintaining and developing the capability and training readiness of soldiers. **Proper eating habits help you keep going for longer and recover faster from the strains of service.** In the long-term, proper eating habits also contribute to your health and your body's well-being.

Conscripts are provided every day with **breakfast, lunch, dinner and an evening meal.** During periods of heavy physical activity, a person should have 4-6 meals/snacks per day, containing an abundance of carbohydrates and an adequate amount of protein. The most effective way of keeping your body going is to consume several small meals a day, as following this principle helps keep the body's energy reserves at a steady level. You should leave an interval of at least 1-2 hours between eating and exercise. An interval of over 6 hours is too long: your energy reserve will run out, reducing your performance.

Your need for energy depends on the intensity and duration of the physical activity you engage in throughout the day. Your body converts any excess energy consumed into fat, increasing your body mass. During periods of short-term and light physical activity, your body needs approximately 2,000–2,500 kcal of energy per day, while during long periods of heavy activity your body may require over 4,000 kcal of energy per day. Your level of physical activity varies throughout your service, so be sure to keep an eye on your daily nutritional needs.

The combined nutritional value of the meals provided to conscripts on a daily basis is 3,300–3,400 kcal. During field provisioning, the energy content of food is 15-20% higher than normal, approximately 3,800-4,000 kcal per day. Consuming the daily meals served at the Defence Forces ensures that you receive the necessary amounts of energy, micronutrients and vitamins.

The conscript's diet is a plant-based mixed diet in accordance with the food circle, emphasising the importance of grains, vegetables, fruit and berries. These ingredients are the most important sources of carbohydrates and fibre. **Carbohydrates are the most important source of energy for physically active conscripts.** Carbohydrate-rich food speeds up the body's recovery from daily physical activity. A mainly plant-based mixed diet also contains a wealth of important vitamins and micronutrients.

Daily nutrition should also provide you with an adequate amount of proteins, the most important sources of which are dairy products, as well as meat, fish and poultry. **Proteins are the body's most important building materials.** When you eat all meals offered in a day you get around 150 g of protein.

Physical activity does not increase the need for fats, which is why you should favour low-fat or fat-free foods in your daily diet, especially when it comes to meat and dairy products. Products rich in fat and/or pure sugar, such as sweets, chocolate, pastries, danishes and doughnuts, should be consumed rarely and only in small quantities. These products contain large amounts of energy, but only very few protective nutrients. For spreads and cooking, you should favour plant-based margarines and oils, as they are rich in unsaturated fatty acids and low in saturated fatty acids, which increase blood cholesterol.

A healthy and diverse diet consists of
(E%= percentage of total energy)

- 45-60 E% carbohydrates
- 25-40 E% fats
- 10-20 E% protein.

By following the basic principles below, you can ensure that the food you consume contains enough energy to help you recover from physical activity as well as a wealth of vitamins and micronutrients:

1. Eat the following with every meal
   — grains; bread, porridge or muesli
   — vegetables, fruit or berries

2. Eat the following daily
   — potatoes or root vegetables
   — dairy products; milk, cultured milk (piimä), yoghurt, viili or cheese
   — meat, fish, chicken or eggs

3. Eat the following in moderation
   — butter, margarine, light spreads and oils
   — sugar, sweets, pastries and soft drinks
   — fried foods
   — fast foods; hamburgers, pizzas, etc.
   — potato chips and other similar snacks
   — salt (no more than 5 g per day, consider hidden salt as well)

Monitor your weight development. Your muscles will grow during conscript service, so a slight weight gain is natural. If you start to put on a lot of weight, however, look for the cause in any additional nutrition – such as sweets, doughnuts and pizzas – that you might have indulged in. The key is to balance eating with the amount of energy you burn.

Be sure to keep following these healthy nutritional guidelines during your free time, at weekends and in the reserve after your service.

The diverse composition of nutrition



An example of the amount of food needed if the daily consumption is 10 MJ (2,400 kcal)

- Fat-free or low-fat dairy products 6-7 dl, cheese 30 g
- Nutritional fats 40 g
- Grain products 300 g
- Potatoes 250 g
- Root vegetables, green vegetables, berries and fruits 450 g
- Meat, fish and eggs 220 g

An example of the amount of food needed if the daily consumption is 13.4 MJ (3,200 kcal)

- Fat-free or low-fat dairy products 7-8 dl, cheese 30 g
- Nutritional fats 50 g
- Grain products 310 g
- Potatoes 500 g
- Root vegetables, green vegetables, berries and fruits 600 g
- Meat, fish and eggs 240 g



Remember to drink enough

The body of an adult male is 60 % water, while the body of an adult female is 55 % water. Water plays a key role in the body's energy production, metabolism, the absorption of nutrients and their transportation to different parts of the body. In addition to this, water plays a particularly important role in the body's temperature regulation and the excretion of impurities.

The human body's water turnover is fairly quick. Under normal circumstances, the daily loss of fluid through urine, evaporation through the lungs and skin and stools is approximately **1.5-2.5** litres per day. However, high temperatures and heavy physical activity can increase fluid loss to as high as over six litres per day. **During long-lasting physical activity, such as a ski or on-foot march, fluid loss can be as high as 4-5 litres.**

You can start preventing dehydration even before engaging in physical activity by stocking up on fluids beforehand. Usually any exercise or combat training that lasts for over an hour requires the consumption of fluids. During physical activity, you should consume 1-2 decilitres of fluids every 10-15 minutes. This amounts to approximately one litre an hour, which is the mean maximum of fluid absorbed by the body. The most effective beverages for maintaining your body's fluid and electrolyte balance are plain water, mild juice and diluted sports drinks (2.5-5 % solution).

6.11 Psychological capacity

Psychological capability is the ability to act in a purposeful manner in psychologically challenging and difficult situations that may also be rapidly changeable. Good psychological capability helps soldiers to face difficult and stressful situations, both in normal and emergency conditions and to act in and recover from them as quickly as possible.

Psychological capability means among other things the readiness to observe and perceive entities and important details and the relationships between them. Psychological capability is built on self-image and self-awareness, as well as on trust in one's superior, weapons and section. Psychological capability affects the capability to make decisions, military discipline and self-assurance, as well as the will to fulfil one's task and win the battle.

Psychologically capable soldiers are confident, brave and determined and meet the challenges of life in a positive and optimistic way, showing self-control, endurance and balance in their choices and actions. Psychologically capable soldiers act persistently to achieve each objective.

Supporting psychological capability

At the beginning of their service, all conscripts undergo psychological testing. The tests determine conscripts' psychological suitability for leadership tasks, for example.

Psychological capability can be developed through training and coaching. Conscripts' capability training includes training in stress management and emergency aid in crises (defusing method). Conscripts are also trained to meet demanding exceptional situations that can arise during emergency conditions.

The psychological capability of conscripts is also developed by training them to set their own personal development goals for improving their own psychological capability.

The brigade's support network (social welfare officer, chaplain, physician, nurse, conscript committee and unit staff) is there for all conscripts. In the end each and every one of us has the responsibility to support a fellow serviceman according to the principle "Leave no-one behind".

In case of possible fatalities and serious accidents, brigade-level units have a psychosocial support group made up of professionals who arrange and provide support and guidance services according to need.

6.12 Social capability and social issues

Social capability is the ability to perceive oneself and others as part of a group and readiness to act in a meaningful way as part of that group. A prerequisite for social capability is among other things good self-awareness and on the other hand also to ability to put oneself in another person's position/situation and feelings (capability for empathy). Social capability includes the capability to interact and human relationships, living together, cooperation, team spirit, taking others into consideration and the spirit of "leave no-one behind".

Socially capable conscripts have good group working skills and build and value human relationships and friendships based on trust and mutual esteem that are of true importance to them. In addition to this, they also contribute to maintaining an exchange of thoughts, opinions and experiences that is valued by both parties.

The objective of developing social capability is group cohesion, which is crucial in emergency conditions from the point of view of a unit's combat efficiency.



Social issues

Information and support services
In matters associated with social security during military service, a conscript is entitled to relevant professional assistance. Social services are available in all of the Defence Forces' headquarters, establishments and brigades. The social affairs chiefs, who are located at the Defence Command lead, steer, plan and coordinate the Defence Forces' social affairs branch. The social welfare officers, who work in the brigades, are responsible for the realisation of social welfare and for information relating to it.

When necessary, the **social welfare officer** supports conscripts and employees in crisis situations and changes in their lives. The social welfare officer helps conscripts especially with problems relating to social security, studies and work, relationships, service motivation and other situations related to civilian life.

Conscript committees work together with the social welfare officer of their brigade in matters relating to social welfare. In each brigade that trains conscripts, there is a conscript committee made up of conscripts. The conscript committee is subordinate to the brigade commander. The conscript committees support conscripts' feeling of belonging, occupational and in-service safety, satisfaction, physical fitness and service motivation. Conscript committees also follow up on needs relating to the position and service conditions of the brigade's conscripts and make proposals for improvement.

We take care of our conscripts
According to the Conscription Act, the Defence Forces provide conscripts with accommodation, catering, clothing and health care free of charge. However, the right to free accommodation and catering does not apply when you are on leave away from your service location.

Daily allowances, leave and travel while on leave
The conscripts' daily allowance or per diem is determined according to the length of service. In addition to the per diem, women carrying out voluntary military service also receive an equipment allowance for buying certain personal equipment. The daily allowance is paid to a bank account twice a month. Conscripts can also receive separate reimbursements and additional allowances such as paratroopers', divers' and pilots' allowances, an additional per diem for military service abroad and food and accommodation allowances.

Reservists are paid a reservist's salary and reservist's per diem for participation in refresher exercises.

Information on the amounts of the per diems, special allowances and other financial benefits for conscripts can be obtained from the company sergeant major, the Conscript guide or varusmies.fi.

All conscripts have the right to a certain amount of personal leave (henkilökohtainen loma, HL in Finnish) depending on the length of their service period: 6 days (165 service days), 12 days (255 service days) or 18 days (347 service days). Conscripts who have distinguished themselves can also be granted exemplary conduct leave, which can be at most 10, 15 or 20 days, according to length of service. A maximum of 180 days of special personal leave (henkilökohtainen syyloma, HSL) can be granted to conscripts for pressing personal reasons. Special personal leave always extends the service period by an equivalent amount of time. Special personal reasons can include e.g. studies, financial reasons, family reasons, sports competitions, duties relating to a position of trust or other justifiable reasons.

12 days of paternity leave can be granted to a conscript, who is married or in a common-law relationship, when his child is born. Paternity leave does not affect the length of the service period. The Social Insurance Institution (KELA) pays paternity allowance to conscripts for the duration of their paternity leave and in relation to childcare also for other leave days (HL, HSL).

In exceptional cases it is possible to defer service entirely to be continued at a later point in time.

Conscripts going on leave are entitled to travel free of charge in public transportation between their garrison and home or place of residence. Travel by train is not limited in the same way. For safety reasons, the Defence Forces encourage conscripts to use public transportation for leave-related travel.

KELA pays conscripts and their families a conscript's allowance for their service period. Military service also includes the time in refresher exercises. Conscripts themselves can receive housing allowance and have the interest that falls due on student loans paid for them during conscription. Conscript's allowance paid to the conscript's family can consist of basic assistance, housing allowance and special allowance. A child can be paid maintenance allowance assigned to the conscript for the duration of the military service period. More detailed information on the conscript's allowance is available in the Conscript guide, on KELA's website or the from the social welfare officer.

Other social security

Conscripts and their families are entitled to apply also for other statutory social security benefits that they need, such as e.g. income support, housing allowance and other social services (children's home care, day care, social counselling).

The social welfare officer advises conscripts on matters relating to social security and social services.

Employment and unemployment security

According to law, a Finnish employer cannot terminate an employment relationship because of military service. You must inform your employer at least two months beforehand when your service starts and preliminarily agree on when you will return to the same job. As the employee, you must inform your employer that you will be returning to work at least two weeks before you intend to start working again.

Farmers that fulfil the general requirements for having an appointed paid stand-in can receive one for the duration of their military service.

If you are unemployed, you must inform the employment and economic development office of the date you begin your military service, and regularly report to the employment office until your military service starts. The waiting period for labour market support and unemployment benefits is not shortened during military service.

Useful for working life and studies

Military training includes studies and training that can be of direct use in civilian professions. Certain elements of military training are accepted as the equivalent to the practical training needed for some professions, and in some fields, conscription is considered as work experience.

It can be easier to obtain many jobs if you have completed your military service successfully. Military service also opens up the possibility of crisis management service or a military profession.

The training that conscripts receive is documented in the service certificate. In this way, it is justifiable and commensurable for credit to be given in different civilian training programmes for studies completed successfully during military service.

» *When you begin your studies, you should discuss with the teacher responsible for the studies whether credit can be given for military service. It is a good idea to enclose your service certificate with job applications.*

Military injuries and service-related illnesses

The Compensation for Military Injuries Act provides compensation for accidents and illnesses that occur during military service or in related circumstances. The aim of the Compensation for Military Injuries Act is to ensure that a person who has been injured or has become ill will have sufficient means of support after military service. The compensation corresponds to that provided under statutory accident insurance.

The Compensation for Military Injuries Act covers the entire military service period. The State Treasury pays expenses and compensation. The following groups are entitled to compensation: conscripts in either armed or unarmed military service, women in voluntary military service, and men in non-military service. Compensation can also be paid to anyone who has participated in refresher training, call-ups, the health examination arranged by the Regional Office or an entrance examination to a military educational establishment.

Compensation can be paid when an accident has occurred at one’s service posting or in an area belonging to it. Compensation can also be made for an accident that has occurred while travelling in connection with military service, or in the conscript's free time, during paternity leave or other leave that is considered military service time.

A service-related illness can be any disease referred to in the Occupational Diseases Act. It can also be a disease probably caused by military service or made considerably worse by military service.

Compensation is paid for medical expenses, loss of income (daily allowance, industrial injuries pension), general disability caused by injury or illness (disability indemnity), increased home care expenses and rehabilitation. During military service, the Defence Forces' health care system is responsible for treatment and costs.

If a conscript dies, his /her beneficiaries can receive financial support equivalent to that of a group life insurance from the State Treasury.

The compensation process begins with filling in a military accident/service-related illness form, which is delivered to the State Treasury. The brigade-level unit's occupational safety delegate or social welfare officer provide assistance in the compensation process. The injured person, the one who has fallen ill or, in case of death, the next of kin may address their compensation claim directly to the Finnish State Treasury electronically.

Pension
Conscripts do not receive pension for their military service period. Pension is accrued when in the employment of the Defence Forces.

Background supporters are important
If things are in order in your civilian life, you will be able to carry out your military service to the fullest without worrying too much about things at home. However, if you are unsure about something that is important to you, or some unexpected or unpleasant change takes place in your life, this affects your morale. Don't let things get complicated by not taking care of them.

It is good to talk to someone about difficult things or problems. Often, you will feel much better if you are able to talk about things. When you do, you may even find a solution to the problem.

The brigade's social welfare officer:

Conscript Committee
The conscript committee arranges versatile activities and is a service point for all. You can turn to the conscript committee in all matters.

Conscript committee phone number:

Conscript committee email:

Conscript committee unit member:

Conscript committee chairperson:

In-service safety ombudsman:

6.13 Ethical capacity and the military chaplains' work

Ethical capacity is the ability to act justly with respect for human worth and in acceptance of differences. It includes the ability to justify one's own actions to oneself and others, awareness of one's own values and those of the Defence Forces and the ability to perceive and differentiate between what is right and wrong. This is based on among other things the individual's concept of morality, which has formed during his/her life.
Ethical capability is made up of the individual's sense of justice and responsibility as well as his/her ability to take responsibility and view of good and evil. It is also closely tied to common sense. Ethical capability ensures that a person can separate right from wrong and make ethically sound decisions in any given situation.

The foundation of ethical capability lies in the statutory tasks of the Defence Forces and in international legal principles. These are seen in the Defence Forces' values and in the military oath and affirmation.

An ethically capable conscript accepts general conscription as a system and commits to it, is willing to defend his/her country and accepts other religions and cultures and is capable of interacting with people from other backgrounds respectfully despite possible differences in opinion. In addition to this, the person understands the legal principles of warfare.

Chaplains' work
Chaplains support the maintenance of ethical capability and psychological endurance in the Defence Forces and offer the possibility of religious practice to those who want it.

The objective of this work is to help in understanding capability as a whole and supporting the building of personality, capability for ethical judgement and outlook on life. The aim is for the Defence Forces to have at their disposal

a well-educated staff that is ethical and assured of the justification of its actions and that is mentally and spiritually sound.

The work of military chaplains is traditionally divided into teaching, preaching and pastoral care.

All conscripts attend the chaplains' lessons. Instruction focuses on capability and does not include religious elements.

Participation in devotionals is voluntary and takes place outside of service time. If a devotional or religious service is arranged during service time, another event focusing on the development of psychological capability that does not include religious elements will be arranged alongside of it. Military chaplains ensure that the freedom of religion prevails and help conscripts belonging to other religions or denominations in matters relating to practising their religion.

You can turn to the military chaplain in all matters, irrespective of your conviction. The military chaplain is bound by absolute confidentiality.



The chaplain in my own brigade is:

____

The conscript chaplain / deacon is:

____

Telephone numbers:

____

The Defence Forces' values

The values of the Defence Forces' personnel include **patriotism, professionalism, justice, responsibility, reliability and cooperation.**

Patriotism is respecting the previous generations' work and sacrifices. The Finnish Defence Forces ensure that also the future generations have the possibility to make independent decisions in the changing security environment. A person's patriotism is realised through thoughts and actions that place the common good of the society before his/her own interests.

Professional skill consists of knowledge, skills, attitude and professional abilities. Professional skills are job proficiency, high work ethic, goal driven actions and independent development of job-specific skills. The Finnish Defence Forces support the development of the professional skills of salaried personnel and conscripts with training and challenging duties.

Fairness is the equal and fair treatment of salaried personnel and conscripts without discrimination, harassment or bullying. Fairness is part of the everyday life of the Finnish Defence Forces.

Responsibility is visible through committed salaried personnel and conscripts and their desire to carry out the given tasks to reach the goals. The Finnish Defence Forces are a responsible employer and are accountable to the state leadership on the precise execution of assigned duties.

Reliability can be seen in the everyday life through the behaviour of the personnel and doing things according to orders, regulations and instructions. The Finnish Defence Forces must in all circumstances enjoy the absolute trust of Finland's state leadership and of its citizens.

Cooperation is a basic requirement for achieving results and for fulfilling demanding tasks. A person's ability to cooperate is visible through doing things together, encouraging others, helping and supporting others and through appreciation of one's own work community and partners. The Defence Forces ability to cooperate is manifested through support to other authorities and through international military cooperation. The Finnish Defence Forces are an active member of the international community in order to increase security and to safeguard capabilities.

6.14 Military oath and affirmation

The military oath is sworn and military affirmation is given according to the following formula: (Underlined sections are repeated according to the example of the reader of the oath).

I (N. N.) promise and affirm…

In oath: before the almighty and all-knowing God
In affirmation: by my honour and by my conscience

that I am a trustworthy and faithful citizen of the state of Finland.
I want to serve my country honestly and, to my best ability,
seek and pursue her edification and advantage.

I want everywhere and in every situation, during peace and during war,
to defend the inviolability of my country, her legal system of government
and the legal authority of the Republic. If I perceive or gain knowledge of activity
to overthrow the legal authority or to subvert the system of government of the country,
I want to report it to the authorities without delay.

The unit to which I belong and my place in it I will not desert in any situation,
but so long as I have strength in me, I will completely fulfil the task I have received.

I promise to act honourably and with integrity, obey my superiors,
comply with laws and decrees and keep the service secrets entrusted to me.
I want to be forthright and helpful to my fellow service members.
Never will I due to kinship, friendship, envy, hatred or fear nor because of gifts
or for any other reason act contrary to my duty.

If I am given a position of command, I want to be just to my subordinates,
to take care of their well-being, acquire information on their wishes,
to be their mentor and guide and, for my part,
set them a good and encouraging example.

All this I want to fulfil according to my honour and my conscience.

6.15 A soldier's rights and obligations

According to the Conscription Act, you are liable for conscription in order to defend the home country and its social order. That is why it is expected that you fulfil certain duties. For you to fulfil these duties thoroughly, you also have rights.

The Conscription Act gives you as a conscript completing his or her service the right to free accommodation, food, clothing, health care and other keep as well as certain economic and social benefits.

In matters associated with social security during military service, a conscript is entitled to relevant professional assistance.

You must adapt to military service conditions

The purpose of military service in peacetime is to train conscripts in their tasks so that they are able to perform them in all conditions be it in wartime or peacetime. A soldier must try to learn the information and skills he is being taught as best he can and maintain the know-how and capability he possesses in accordance with the Conscription Act. A soldier is obligated under law to show unconditional obedience towards his superior and to carry out any legal order or task given by his superior.

» *A soldier is legally obliged to follow the rules of war and engagement and any other instructions based on these rules.*

A soldier must adapt to the conditions in military service, to military discipline and to co-operating with other soldiers. He must show initiative and he must unconditionally set himself at the service of his superiors and he must trust his superiors.

A soldier is obliged to take care of and make careful use of any state property he has been entrusted with and to use this property according to orders and regulations. This rule applies to the personal weapon that each conscript is issued with as well as to any other equipment, and to any property that is intended for common use within the unit.

A soldier is to show good manners by being active, upright and by behaving appropriately in any given situation. He applies himself diligently to any task and takes care of his appearance and clothes. A soldier's professionalism, the Finnish Defence Forces as well as the soldier's unit are judged according to his behaviour.

The Conscription Act gives the right to order a conscript, following his or her consent, to take part in a drug test if the conscript is to complete a task that requires precision, trustworthiness, self-initiative or good reflexes and where completing the task under the influence or in a state of addiction could jeopardise someone's life or health or weaken in-service safety, traffic safety or the protection of data received while completing tasks. If there is sufficient reason to suspect that a conscript is under the influence while in service or that he or she is suffering from drug addiction, such a person may be ordered to take a drug test regardless of the conditions mentioned earlier.

"Leave no-one behind"

A soldier must live in peace with his brothers-in-arms. Veterans from the Winter and Continuation Wars had an iron-fast principle "Leave no-one behind" and that principle still lives on: whoever needs help must be helped without that person having to ask for help. A soldier earns the respect of others by taking others

into consideration, by doing things for the common good and by being polite. As the world becomes more international, openness and tolerance are all the more important.

» *A soldier must be there as support for those who are younger, for those who are less experienced as soldiers and he must influence them by providing them with a good example of how things are done. When something is difficult, you must have the courage to turn to your superior.*

A soldier serves his country and people regardless of his political or ideological views. A soldier must not let himself be bribed or in any other way swayed into breaking, neglecting or shirking his responsibilities.

As a superior, a soldier must treat his subordinates fairly and equally and he must ensure their well-being. A superior must systematically maintain discipline and military order. Those who have exceeded themselves should be commended and rewarded for their efforts. Those who have willingly wronged or committed a crime should be disciplined and punished. Only a designated member of Defence Forces personnel who has been granted disciplinary powers may implement disciplinary measures.

Finland's Criminal Code protects a soldier from abuses of powers, unfair treatment, violation of rights or unfounded accusations from the part of his superior. A soldier has the right to be treated according to regulations and he has the right to be treated with decency, i.e. appropriately, fairly and without infringing on his human dignity.

6.16 Military judicature

Military judicature is a term that refers to the process of taking action against military offences. This action includes anything from disciplinary procedures to military court proceedings. The objective of military judicature is to maintain military discipline and order. This is done to guarantee legal protection of the individual soldier as well as to improve the performance of the entire armed forces.

Important regulations to do with military judicature are:

- **Criminal Code** (especially Section 45 that pertains to military offences).
- **Acts on Military Discipline and Crime Prevention in the Finnish Defence Forces,** both of which include regulations on the disciplinary supervisors and their jurisdiction, preliminary investigations, disciplinary actions, execution of court decisions, requests for settlement, and appeal procedures.
- **Uniform Code of Military Justice**, which includes regulations for the trial of military offences at courts of law.

Soldiers are subject to the military penal code from the moment they enter or are drafted into service until they are discharged from service either at the end of their service period or on their own request.

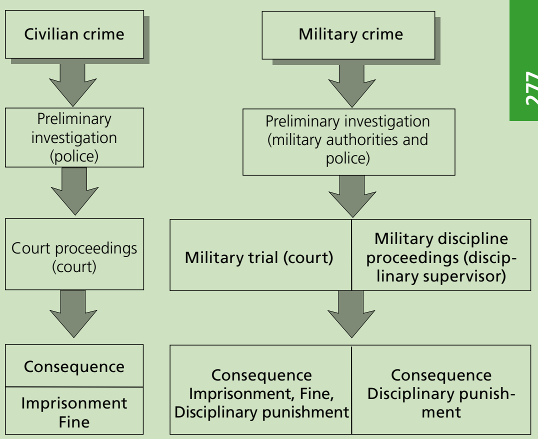
Military offences

Military offences are punishable acts by law (Section 45 of Criminal Code). Military offences are among others:

- **absence offences,** such as
  - **absence without leave** means, for instance, leaving the barracks without authorized leave or exceeding leave time without approval or going on leave prematurely
  - **desertion** refers to absence without leave that has been continued by the conscript for more than five consecutive days and that caused essential discontinuation or hindrance to the conscript's training or service
- **disobedience offences** include
  - **insubordination**, such as refusal to fulfil orders issued by superior officers, neglecting orders, or delaying carrying out orders
  - **assault of a superior officer**
  - **obstruction of a superior officer**

  Soldiers engaging in disobedience as a unified group will be punished separately and more severely.
- soldiers are guilty of **service offence** if they violate or fail to carry out duties or orders stemming from regulations concerning military order.

The most important regulations concerning military order are the ones connected to the General Service Regulation. Other integral documents are, for instance, safety regulations. Soldiers receive instruction on service-related obligations so that they are able to follow regulations, and if they are unsure of how to carry out these duties and orders they must bring this to the immediate attention of their supervisor.



A soldier is guilty of service offence if intoxicated to the extent that it results in a lower capacity to perform the required duties or in the case of self-harm or conscious lying to obtain exemption, leave, or relief from duties.

- Soldiers are guilty of **sentry offence** if they leave their post without permission while on duty or fail to arrive at their post on time or fail to comply with or violate the rules and regulations concerning sentry duty.
- **other offences**
  - **Conduct unbecoming a soldier** refers to situations where an off-duty officer appears intoxicated or causes disturbance either in public, in the barracks, or any area belonging to the Defence Forces.

Disciplinary and military court proceedings deal with a wide range of crimes committed by soldiers, such as assault offences, theft offences, forgery, and malicious damage with the precondition that the object of these crimes is either the Defence Forces or another soldier. For instance, misplacing or damaging the equipment either by intent or negligence is punishable and often results in liability for damages.

Consequence	Disciplinary supervisor			
	UNIT OFFICER	UNIT CO	BN CO	BDE CO
Disciplinary punishments				
Reminder	Yes	Yes	Yes	Yes
Extra service	1 – 3 times	1 – 5 times	1 – 5 times	1 – 5 times
Confinement to barracks	No	1 – 10 days	1 – 15 days	1 – 15 days
Warning	No	Yes	Yes	Yes
Disciplinary fine	No	No	No	1 – 30 days

Sanction system and principles and factors in determining sanctions

Sanctions for military offences are the following:

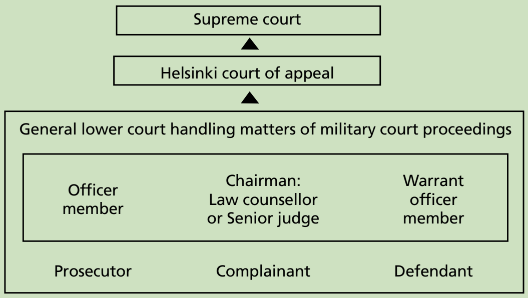
- **disciplinary punishment:**
  - Reminder
  - Extra service (1 – 5 times)
  - Warning
  - Confinement to barracks (1-15 days)
  - Disciplinary fine (1 – 30 days)
  - Military confinement (1-30 days)
- **fine**
- **imprisonment**

Factors in determining sanctions

- **aggravating circumstances** are, for instance:
  - multiple crimes
  - the crime has been committed in the presence of fellow soldiers and can thus have a negative effect on discipline and order
  - abuse of supervisory powers
- **extenuating circumstances** are, for instance
  - if the perpetrator's ability to abide by the law has been weakened by the reprehensible procedure of his or her supervisor

Military discipline proceedings

A disciplinary supervisor can by law dismiss the preliminary investigation or the sanctions arising from it, if given the circumstances, the act has been committed as a result of pardonable oversight, thoughtlessness or ignorance or if the act can otherwise be considered as a trivial offence from the perspective of discipline and order.



Military proceedings

The most serious military offences are tried in court. The lowest court instances for military offences are the district courts. These cases are tried in distinct military compositions but yet, the proceedings are identical to those of civil trials. The prosecutor is a district prosecutor who is an expert in the field and who has separately been ordered to function as a military prosecutor. The defendant is entitled to an associate. If the defendant is unable to obtain legal representation, the court will appoint a counsel to assist him or her. With certain preconditions, the counsel will be remunerated for his or her services from public funds. The ruling of a district court can be appealed against by taking the case to the court of appeals in Helsinki. For military offences, the court of highest instance is the Supreme Court.

Legal protection and military judicature

The foundation of military judicature consists of clear rules of jurisdiction and procedure as well as supervision by higher authorities. The Chief Legal Advisor of the Defence Forces directs and oversees military judicature and the lawfulness of the Defence Forces. The brigade commander inspects the disciplinary decisions

four times a year. The commander of the service inspects these decisions once a year. They are presented to him or her by a military lawyer. The General Service Regulation affords soldiers the right to bring any procedure they view as unjust to the attention of a higher authority or the Parliamentary Ombudsman.

The right to appeal

- Soldiers sentenced to disciplinary punishments or soldiers convicted but not sentenced can appeal against the penalty given by the battalion commander, company commander, or company sergeant major by taking the case to the brigade commander and issuing a plea for resolution
- Disciplinary decisions, including those based on pleas for resolution, given by the brigade commander or a higher disciplinary official can be appealed by issuing an official disciplinary complaint to a court of law.
- disciplinary decisions, including those based on pleas for resolution, given by the brigade commander or a higher disciplinary official can be appealed against by issuing an official disciplinary complaint

Disciplinary complaints are tried in the court that handles the unit's military offences. The complaints can be filed with the disciplinary supervisor who issued the penalty, company commander, company sergeant major, or the unit's duty officer. The complaints will be processed at a court session open to the appealing party. The appealing party is entitled to use counsel.

Administrative complaints are complaints that are filed with the supervisor of the person that the complaint concerns or an administrative authority

- are notices based on reasonable suspicion of illegal procedures or maladministration
- can be submitted by anyone
- do not require a specified form but are recommended to be submitted in writing

Complaints are filed with the **Parliamentary Ombudsman** who is in charge of extraordinary appeals on the basis of procedural faults and whose duties include overseeing the lawfulness of the military authorities' actions. Extraordinary appeals to the Parliamentary Ombudsman on the basis of procedural faults do not require a specified form of submission.

6.17 Compensation for damages

When a conscript causes damage to the Defence Forces, the case is handled by a military authority. If the liability for damages is open to doubt, or the damaging party refuses to compensate for the damages, the case will be tried in court.

Damage caused to the property of the Defence Forces

If a conscript, while performing his duties, causes damage to government property and this damage occurs as a result of a deliberate act, carelessness or negligence, he or she will be liable for damages. The compensation can be adjusted based on the extent of damages, nature of the action, position of the damaging party, and other circumstances. If the damaging party is guilty of only slight negligence, the government will assume liability for the damages.

If the damage is caused off duty, the conscript is liable for damages even if he or she is guilty of only slight negligence. An exception can be made and the compensation can be adjusted if the compensation for damages is found to be unreasonably excessive, in which case the wealth of the damaging party as well as other circumstances are taken into consideration.

Damage caused to the property of a conscript

Conscripts can be remunerated from public funds if their personal property is accidentally lost or damaged while on duty or due to conditions of service, with the precondition that carrying this property while on duty was important and necessary from the point of view of

service. The amount of damages must be reliably ascertained.

If the property of a conscript is damaged either by the Defence Forces or its staff, the damages are compensated from public funds, with the precondition that these damages occurred as a result of an activity related to the functions of the Defence Forces.

If the property of a conscript is damaged either by the Defence Forces' staff or some third party, and the activity causing this damage has no relation to the functions of the Defence Forces, the injured party is entitled to compensations from the damaging party.

Personal injuries

The injured party is entitled to seek compensation for personal injuries either from public funds or the damaging party on same grounds as for property damages.

The Defence Forces are liable for the health care of conscripts during their entire period of service. The act on accidents involving military personnel secures the livelihood of those suffering from service disease and service injury after they are discharged from service. The State Treasury will attend to these expenses.

6.18 Warfare and legal principles relating to it

Fundamentals

The rules of armed conflict are formed of several international agreements that are usually named after the location of the negotiations leading up to them. The agreements are part of international law and binding for the contracting parties. Some of the most important agreements are the Hague Conventions of 1907, the Geneva Conventions of 1949 and their 1st and 2nd protocol additional from 1977 and 3rd protocol additional from 2005, the Hague Convention for the Protection of Cultural Property of 1954 and the UN Convention on Certain Conventional Weapons (CCW) of 1980, with its protocols I-V. According to Protocol V to the CCW Convention, parties are to clear explosive remnants of war. Actions contrary to these agreements, or non-compliance with the obligations laid out in them is punished in accordance with the Criminal Code of Finland. The Criminal Code's Section 11 on war crimes and crimes against humanity were amended in 2008, especially due to the entry into force of the charter of the International Criminal Court. Finland is a contracting party of all of the aforementioned agreements.

Finland is also a contracting party of the convention on the prohibition of the use, stockpiling, production and transfer of anti-personnel mines and on their destruction (the Ottawa Convention). The convention obligates Finland to destroy its anti-personnel mines by the end of the year 2015. The convention allows the possibility of keeping a necessary amount of mines for the development of mine hunting, mine clearing and mine destruction technology or for related training.

In addition to those belonging to the actual armed forces, soldiers, i.e. legal combatants, are such individuals who are subordinate

to an officer responsible, use military uniform or a clearly visible marking, carry their weapon openly and adhere to legal principles and customs of war. If captured by the enemy, a soldier is entitled to be treated as a prisoner of war. A mercenary is not a legal soldier.

Soldiers adhere to the legal principles of war. In accordance with this, a soldier firing on military targets using a scope rifle is called a marksman, while a person firing on civilians from an ambush point is called an assassin. An assassin is a criminal.

The obligation to protect and care for people who are ill and wounded does not differentiate between whether they belong to friendly or enemy forces, nor may this obligation be affected by racial, religious or political opinion. Civilian population centres, medical institutions, cultural sites and establishments that are dangerous for the environment are protected. Medical personnel entitled to protection carry the emblem of the Red Cross or Red Crescent; civil defence facilities and cultural sites to be protected are marked with their own symbols. Protected sites may not be used for action against an enemy. The protection ceases if this is done.

Prisoners of war are obligated to give only their name, rank, date of birth and identification tag number. The following answer is given to all other questions: "I cannot answer the question". Protective equipment, personal effects and identification tags may not be taken away from prisoners of war.

It is forbidden to use force against a prisoner of war. In camp, the well-being of prisoners of war must be guaranteed. The possibility for them to contact their family and to practice their religion must be arranged.

In order to protect the civilian population and civilian property, **military operations** may not be random, but **must be directed only at military targets;** targets that may not be attacked are named in the legal principles of war. In an occupied area, the occupier must ensure the continuation of normal life and livelihood of the civilian population remaining in the area.

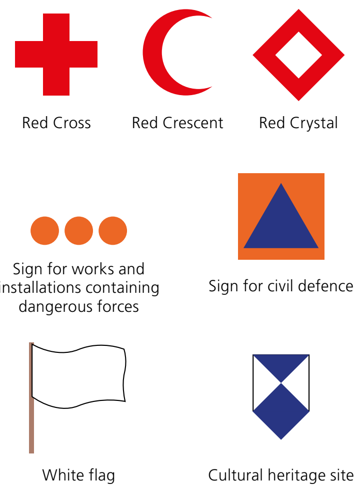
Finnish soldiers are bound by the rules concerning soldiers

1. As a Finnish soldier, in all activities you undertake you must always follow all legal military orders and legal principles of war. Failure to do this is punishable and it is damaging to your country and to your own and the Finnish Defence Forces' reputation. Such deeds cause unnecessary suffering and will result in the enemy acting the same way towards our own soldiers and civilian population.
2. You must fight only against the enemy's soldiers and military targets. Do not destroy more than your mission requires and is absolutely necessary from a military point of view.
3. Do not kill or injure enemies that surrender or are incapable of combat. Disarm them and hand them over to your superior. Gather together the wounded, ill and wrecked and take care of them whether they are friends or enemies.
4. Treat all civilians and enemy soldiers under your control properly.
5. Prisoners of war are obligated to give only their name, rank, date of birth and identification tag number. They are not to be forced to give any other information. Bodily and psychological torture of prisoners of war is forbidden.
6. Taking hostages and using human shields is forbidden. You must refrain from all acts of revenge.
7. Do not use prohibited weapons, ammunition, equipment and combat measures; do not modify weapons and ammunition without permission.
8. Do not attack civilian and other protected sites and people bearing their emblems,

unless these emblems are being used deceitfully for military purposes by the enemy. Respect international symbols of protection such as the white negotiation flag, the United Nations' emblem and emblems of civil defence, cultural sites and facilities containing dangerous forces as well as facilities and people bearing medical service emblems (Red Cross, Red Crescent or Red Crystal).

9. Respect other people's property. Robbing and plundering is forbidden. Weapons and ammunition gained as prizes of war can be used with the permission of your superior.
10. Do your best to prevent these rules being broken. Notify your superior if you observe rules being broken. Anyone who breaks the legal principles of warfare will be punished in accordance with the Criminal Code of Finland.

Internationally recognised protective emblems and signs



Something to think about

- Why are civilian losses greater in civil and guerrilla wars than in conventional war?
- What separates Finnish guerrilla-type activities from guerrilla war?
- As a prisoner of war, what information are you obligated to give to interrogators?
- What should you do if your team-mate acts contrary to the rules that bind soldiers?

6.19 Security policy

Objectives of security policy instruction during the basic training period

The overall objectives of instruction on security policy for conscripts are:

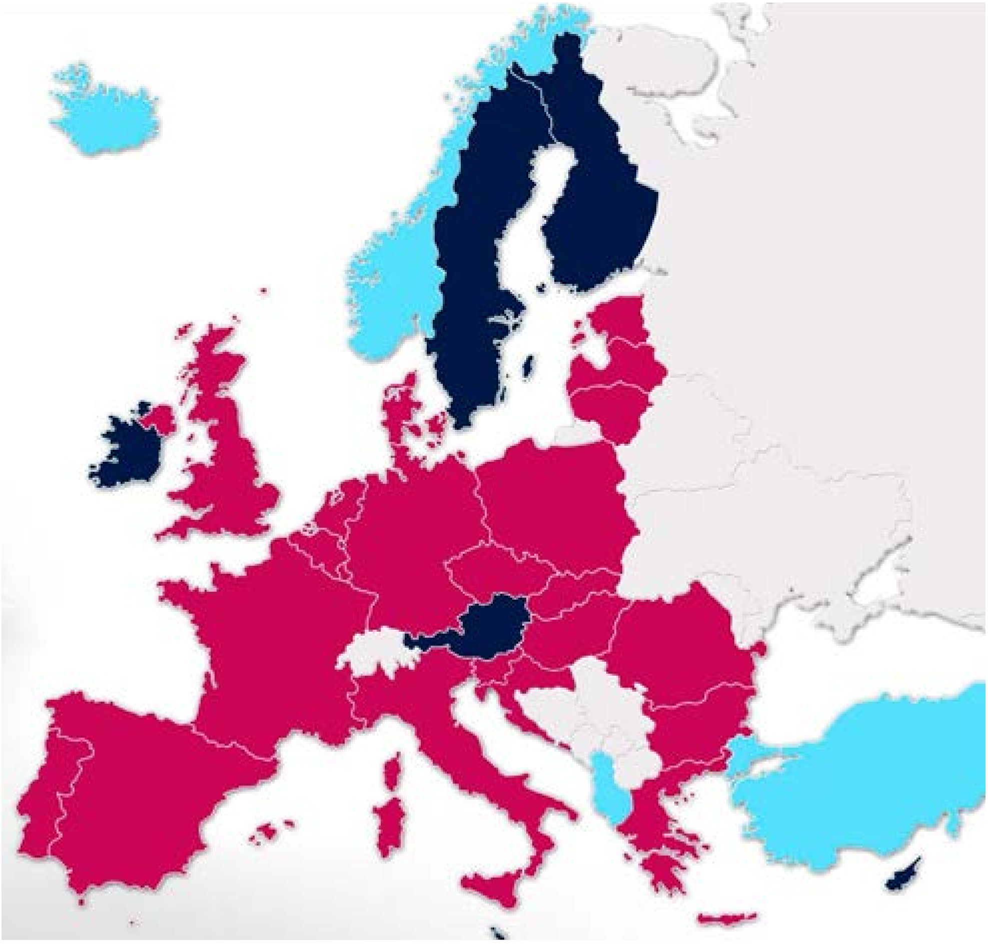
- to reinforce earlier education and give all conscripts information on our country's security policy. The focal point of instruction is national defence and especially military national defence as a part of Finland's security policy
- to teach every soldier the international rules of armed conflict (in accordance with article 83 of Protocol 1 additional to the Geneva Convention of 1977)
- explain the security situation of the world, Europe and especially northern Europe and Finland
- explain to conscripts the significance of general conscription.

Background material on security policy is available for reading at turpopankki.fi

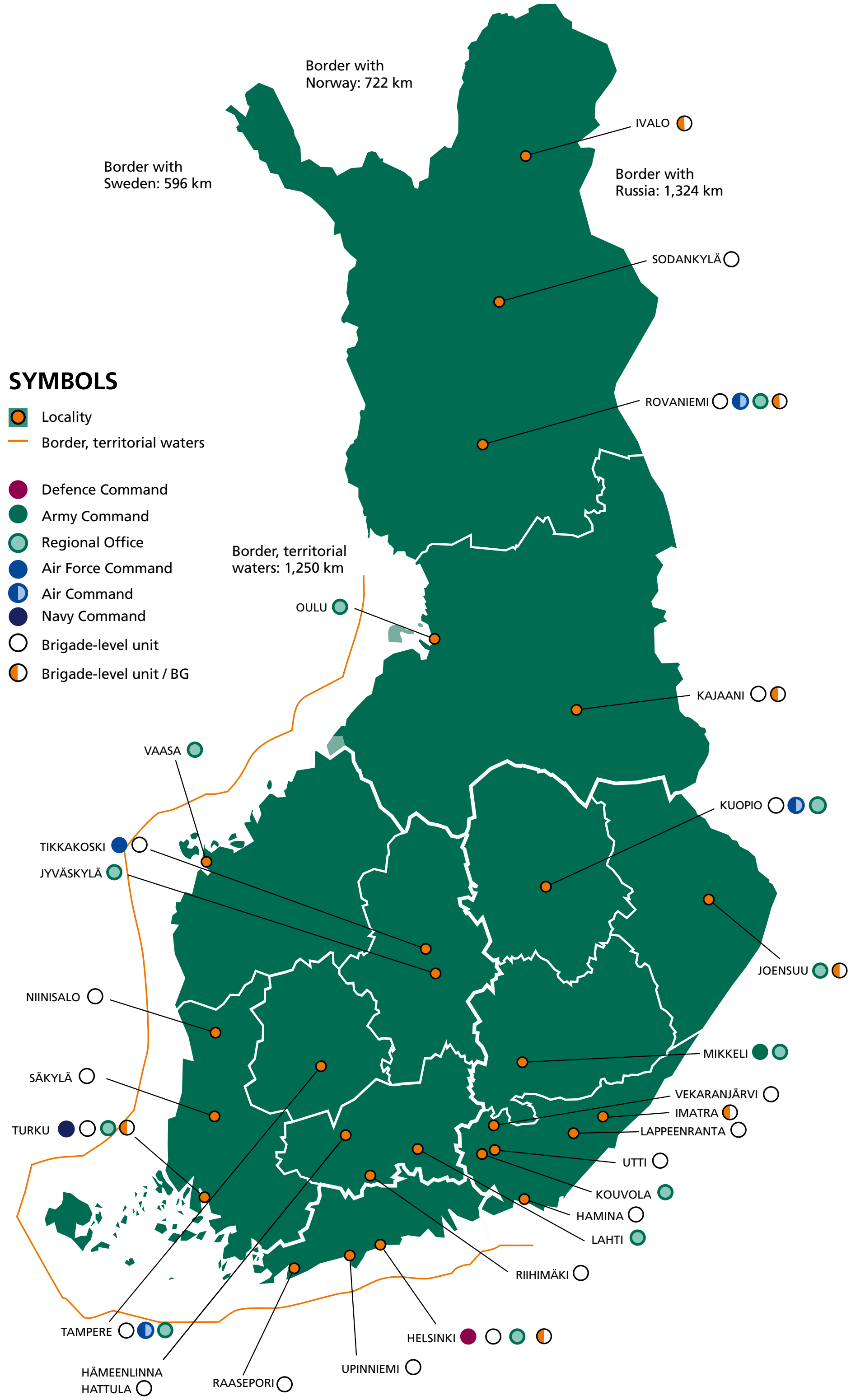
Tasks of the Finnish Defence Forces

1. **The military defence of Finland**, which includes:
   - monitoring the land and sea areas of Finland and its airspace, ensuring its territorial integrity;
   - securing the livelihood and basic rights of the population and the freedom of action of the government, defending the rule of law;
   - providing military education, guiding voluntary national defence and promoting the will to defend the country;
2. **supporting other authorities**, which is to:
   - work with other authorities to maintain law and order and security, prevent and stop terrorists and to secure society in general;
   - take part in rescue activities by providing equipment, personnel and expertise;
   - take part in assisting another country when a terrorist attack, a natural or other disaster or other similar incident has happened; and
3. **participating in international military crisis management.**

Grounds for security policy in the neighbouring area



The regional military command structure



7 Security training

7.1 Being on duty in a company/equiv.

Being on duty is part of a company's general order and safety. A duty officer ensures that a unit remains functional outside of normal office hours. Duty ensures that readiness can be raised quickly. Duty on rotation ensures that those not on duty can sleep soundly, they will be woken up when needed and it ensures that sensible measures will be taken in the event of, e.g., a fire or alert. The task of the duty officer's assistant allows the assistant to practice sentry duty and the actual tasks of a duty officer. The company commander or the company sergeant major will order who is on duty and who are the **duty officer's assistants.** In matters related to being on duty, the duty officer has command authority over every conscript and reservist within the company. The tasks of the duty officer and his or her assistants are to be found in the **duty instructions** of every company.

» *The instructions will say what equipment the duty officer must have, it explains the duty officer's command authority and reporting for duty responsibilities, the duty officer's responsibilities and rights, possible other service the duty officer must take part in and the rules of engagement.*

» *Read the instructions before it is your turn to be duty officer. If there is some thing in the instructions that you do not understand, ask your fellow duty officer or superior to explain.*

The tasks of a company duty officer are among the following:

- **ensure orderly behaviour within the unit**
- wake up the unit and supervise morning routines
- collect and deliver the morning report to the company sergeant major
- record in the company health diary those who have reported as ill and send them in a led detachment to the doctor
- take responsibility for getting the company ready for service
- organise company meals and supervise that soldiers follow table manners during meals, make sure that those who have been ordered to stay in bed get food as well
- supervise those who have been dispensed from outside duty or who have been ordered to stay in bed
- **report on any out-of-the-ordinary events that may have occurred to the unit commander and company sergeant major**
- **report to the brigade duty officer on any events requiring urgent action**, such as an accident, fire or disorderly behaviour, unless the commanding officer, company sergeant major or some other member of the Defence Forces' regular personnel are present and can implement the measures called on by the situation at hand
- **supervise** state property that is within the possession of the company, especially weapons that are kept in the weapons racks, by, among other things, checking the number of guns and that weapons racks are locked
- **supervise that no unauthorised persons are within the company's area**
- following a specific order to do so, maintain a record, archive or table on the **company's actual strength**
- distribute and collect leave certificates and conscript and reservist cards
- inspect that conscripts leaving the company to go on leave are tidy and clean in appearance and in line with given regulations
- supervise evening routines
- **make sure the company's doors are locked** at night and check that all windows, stores and offices are shut and locked and turn off any lights that have been left on
- maintain the duty officer's log.

All company-specific instructions are to be found in your company's duty instructions. Go through them carefully before it is your turn to be duty officer!

The duty officer orders when to get prepared and organised well in time.

When preparing for a scheduled service activity, you are to issue instructions on the quality of the tasks at hand, the weather and the equipment that is going to be needed. You are also to instruct your subordinates on clothing so that everybody will be wearing the same clothing. The duty officer will receive the basics for this from the person leading the exercise or he may use his own discretion.

The order to prepare is usually given around five minutes before indoor or outdoor duty is to begin. The order should not be given too early, nor should the unit be made to wait without good cause.

Something to think about

What would you do in the following situations:

- There is a fire in your unit.
- There is an accident in your unit.
- Someone is behaving disruptively in the unit and you cannot get the person to calm down.
- Someone dressed in civilian clothing attempts to enter your unit at night. You do not recognise the person.

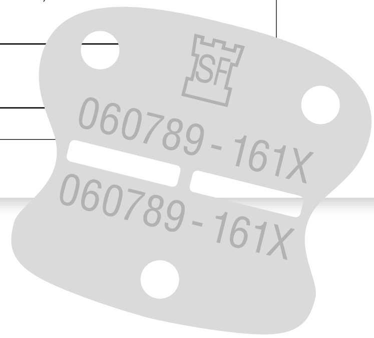
7.2 Mobilising an exercise or wartime formation

Mobilising a troop is putting together personnel and materiel and organising them into a functional formation.

The formation is mobilised following the same principles both in exercises during military service, in refresher training and in wartime service. During mobilisation, the combatants' primary tasks are to inspect their own equipment, participate in the section-specific equipment check and give their personal information to their section commander, who will compile

ID-CARD

(Finnish) Social security number	
Family name	
First names	
Rank	
Place of registration	
Place of residence	Regional office
Next of kin (relationship and name)	
Address of next of kin	
Signature of ID-card holder	



Identification tag (made of metal, carried on a chain around the neck) and identification card.

a list for the platoon or battery section commander.

Even if your section commander is not present, equipment checks and compiling the name list must begin immediately and the results of these must be given to the platoon or battery section commander.

Combatants check their own equipment first:

- you have your identification tag and ID-cards or exercise ID-cards
- you are familiar with the weapon you have and that you have all of its equipment with you
- rounds that may already have been distributed are the right type (loading magazines and weapons is not allowed until your superior gives the order)
- protective gear and first aid supplies are in accordance with the exercise order or distribution list
- other ordnance that may already have been distributed, such as hand grenades and rocket launchers are complete, intact and functional
- the fighting load is in accordance with the lists distributed
- the marching load is in accordance with the lists distributed
- water bottles are clean and filled with water or sports drink according to instructions

The exercise ID-card can include e.g. the following information:

- (Finnish) Social security number
- Family name
- Given names
- Rank
- Municipality of domicile
- Parish
- Peacetime company-level unit and brigade-level unit

During peacetime exercises, blanks and rounds are distributed according to the exercise plan. In wartime, the distribution of rounds is ordered in the mobilisation plan.

Separate instructions on mobile and smart devices will be given when the unit is mobilised.

When combatants have checked their own equipment, they inform their section commander. If the check reveals deficiencies, the section commander will assess their effect on the completion of the task.

The section commander will ask combatants for their personal information according to the instruction distributed. During military service, all the combatants' information is already with the unit, which means that shorter lists can be used in refresher exercises or when mobilising a wartime formation. In such case the essential is the combatant's rank, name and weapon number.

When combatants have checked their own equipment, they go on to check the distributed section-specific equipment. Checks can be carried out either led by the section commander, according to regulation or based on separate agreement. In case of crew-served weapons, the focus is on the working order of the weapon and its munitions.

Drivers check their vehicles and loading according to instruction and inform their section commander of possible deficiencies. The rest of the section participates in the check.

The results of section checks are compiled to put together platoon and company results, and these are registered in the readiness inspection record. The record also shows possible deficiencies. Finally, the commanding officer will state the unit's readiness for war. At this time the unit is transferred from under the command of its mobiliser to the exercise or wartime commanding officer.

During military service, one copy of the readiness inspection record will remain with the mobilised unit and another with the peacetime company-level unit, or during refresher training and when mobilising a wartime unit for service with its mobiliser.

7.3 Operational security

Operational security is the protection of personnel and troops from reconnaissance carried out based on public information. Enemy reconnaissance is capable of monitoring different information networks and collecting information. By combining this information, it can find out the movements, capability, defence will of your wartime unit and find other valuable information. This information can be used in information warfare or in directing other kinds of reconnaissance against your unit.

Operational security is emphasised already during peacetime, but especially during mobilisation and preparation for combat, when soldiers use mobile and smart devices for keeping in touch with their families. During peacetime, each soldier must assume the proper modes of operation with regard to e.g. the use of social media, contact with families and communication with other people.

Soldiers must not discuss their wartime task, unit and especially its capability and modes of operation in public media or talk. In addition to this, one must avoid publishing coming events or locations of a unit, as this is the type

of information that an enemy is interested in. It is for example possible to easily collect such information from social media services and draw conclusions based on this. When put together, individual pieces of information can reveal classified information and endanger your unit.

7.4 Occupational and in-service safety

Occupational and in-service safety refers to all the procedures and operational models that protect employees from the dangers they may encounter in their work, during their service or in their operating environment. Ensuring in-service safety must be an important part of all conscripts' service duties.

The focus of in-service safety lies on military training, where conscripts become subjected to increased risks. Arrangements and requirements relating to safety are issued by the Defence Forces in the form of orders and regulations. These include safety and other regulations, guides, handbooks as well as other binding norms. The Defence Forces also work to ensure the safety of conscripts during their free time.

Responsibility for in-service safety arrangements lies with the leader of a training event of other service task and with the unit's instructors. Instructors must be familiar with user and safety requirements and guidelines concerning the equipment in use and supervise the correct use of each device. Also conscript leaders must understand their responsibility and duty to ensure the safety of the unit under their leadership. They must be able to assess the risks to in-service safety posed by the task they have received as well as take the risks into consideration in the activities of their unit.

Both instructors and trainees are responsible for in-service safety.



Conscript's responsibilities and duties

All soldiers must

- **know how to safely use weapons and equipment given to them and, in their own activities, take into consideration the risks posed to themselves and their own unit**
- **Soldiers are not permitted to use such weapons, equipment or explosives that they do not consider that they have enough skill to use. The superior must immediately be informed of such situations.**
- **A safety or protective device mounted or installed on a weapon or piece of equipment may not be removed or turned off without permission.**
- **know what the unit is doing and what their own role is as a part of the unit**
- **using all means available to them, ensure their own safety as well as that of other soldiers**
- **follow in-service safety regulations relating to their own task**
- **use personal protective equipment and other equipment given to them**
- **maintain cleanliness and order**
- **inform their superior of all faults and defects (e.g. conditions, training equipment) that can endanger safety.**

Reporting a dangerous situation

All observations involving near misses and accidents must be reported to your superior. An observation involving danger can be e.g. finding a blank cartridge in a weapon while cleaning it. This is an occurrence that can result in danger to a person even though no damage has been done yet.

A near miss can be e.g. a blank cartridge going off while cleaning a weapon without anyone nearby being injured. A near miss can in other words be a dangerous situation occurring, where injury to person was close.

It is extremely important to report dangerous and near miss situations. By reporting dangerous situations and near misses, it is possible to prevent other similar situations and injuries from happening again. This is not about finding the guilty party. It is easy to report observations and accidents by filling in an incident card. (see incident card picture). When you have filled in an incident card, return it to your superior or put it in the incident card feedback box.



Five commandments of occupational and in-service safety

1. Never aim your weapon at any other person than the enemy.
2. Think and identify danger before you act.
3. Shout "seis" (stop), when you see danger.
4. Always report dangerous situations openly and actively.
5. Always follow safety regulations.

Each conscript is responsible for making sure to follow in-service safety regulations and guidelines that he/she has received instruction in in relation to his/her task. All conscripts must know the principles of occupational and in-service safety and understand their importance in relation to the safety of their own activities and their development. Conscripts must be able to function as part of a unit in a manner that does not place any soldier in their unit, including themselves, in danger. In addition, they must possess the ability to observe any danger directed at themselves as a result of their unit’s actions.

The development of in-service safety in one's own activities is trained throughout military service. The best way to improve security is to ensure staff competency. One central principle in all different stages of training is to first and foremost learn to perform new duties safely. After this has been achieved, the training can focus on the speed of the performance. The trainees’ abilities to perform their duties safely are assessed before allowing them to enter the next, more demanding training stage. In addition to instructor evaluation, it is integral that the trainees complete a self-evaluation on the adequacy of their skills.

When a military exercise is well-organized, trainees feel that the risk of accidents has been taken into consideration and decreased to a tolerable level. Training is safe when the participating soldiers know how to use their weapons and equipment and are able to take into consideration the risks caused by their operational environment. During emergency conditions, it is important to assess the risks future missions pose to the safety of the unit. This is an effective way to reduce casualties that occur as a result of the unit’s own actions.

7.5 General traffic safety

» *Road traffic is not a game or a racecourse!*

Conscripts are a risk group. Most personal injuries that occur in traffic involve 15-24-year-olds. The risk of being killed in traffic is more than three times as large in this risk group in comparison to the rest of the population.

Within a period of ten years, between the years 1991 and 2000, a total of 35 fatal traffic-related accidents happened to conscripts. Four accidents took place while in service and a total of 31 accidents happened while the conscripts were on leave or while travelling in relation to their leave. Leave time is the most dangerous time for conscripts with regard to traffic safety.

Mission

Think about what makes leave time dangerous for conscripts.

Seat belt

Using their seatbelt would have saved half of those who were in a fatal accident during the last ten years. Of those who were injured, three out of four would have gotten away with fewer injuries or completely without injuries.

In a dead stop, the force you are subjected to is great already at speeds used in built-up areas. At a speed of 50 kilometres per hour, the crash weight of a person weighing e.g. 70 kilos is approximately 3,000 kilos. This means that a person sitting in the back seat of a car without a seatbelt would crush the person sitting in the front seat. When your speed exceeds 7 kilometres per hour, you are no longer able to hold yourself in place with your hands.

Using a seatbelt is mandatory for all people travelling in a car, including those sitting in the back seat of a taxi.

An airbag does not replace a seatbelt. Without a seatbelt, an airbag gives only 20 % protection, while only a seatbelt prevents around 50 % of fatalities. Together, an airbag and seatbelt give the best possible protection.

Driving speed

Driving speed is of significant importance to your own safety and especially the safety of pedestrians. When your speed increases from 40 km/h to 50 km/h, the probability of pedestrian fatality increases by more than double. When your speed increases from 30 km/h to 60 km/h, the probability of pedestrian fatality is more than ten-fold.

Decreasing one's speed adds less time to one's journey than people think. Decreasing one's speed from 50 km/h to 30 km/h for example, adds only 20 % to the total travel time.

Fatigue

The cause of traffic-related accidents involving conscripts is often that the driver falls asleep. It is always dangerous to drive when you are tired. Avoid driving when tired by resting enough before you start out, resting along the way at rest stops, renewing your energy by taking a walk, taking a break in a cafeteria and by keeping your fellow travellers awake. Change drivers or take turns driving if necessary. In any case, it is good to do this at intervals of approximately 45 minutes.

Passengers should keep the driver vigilant and awake by talking to him/her.

Even if you feel fresh when starting out, you can get tired on the way if you haven't gotten at least 6 hours of uninterrupted sleep in the previous 24 hours.



Alcohol

The liver burns one gram of pure alcohol per ten kilos of body weight in one hour. This means that the liver of a person weighing 80 kilos burns around 8 grams of alcohol in one hour.

A person weighing 80 kilos burns alcohol approximately as follows:

- one bottle of medium strength beer 1 hour and 30 min
- one bottle of strong beer, 2 hours
- one bottle of red wine, 9 hours
- one bottle of spirits, 22 hours.

In addition to the amount of alcohol, many individual factors also affect the blood alcohol content. A rule of thumb is that two bottles of medium strength beer raises the blood alcohol level of a person weighing 70 kilos to 0.3 per mille. Even if the drunken driving limit of 0.5 per mille is not exceeded, the police always have the right to interrupt a journey if they consider the driver's capacity to be impaired.

Drunken driving is a crime and costs incurred by it are not covered by any insurance. In case of an accident, also the passenger is liable to pay, so it is best to say no if offered a lift by a driver who has been drinking. It is also a crime to allow someone who is drunk to use your car.

Medicines

Medicines that decrease a person's capabilities or precision are marked with a red warning triangle. This does not necessarily mean that the medicine always decreases all people's skills for driving in traffic. For this reason it is not forbidden to drive while taking such medicines, but it is a warning.

The fact that a medicine is not marked with a warning triangle does not guarantee that it is always safe to take the medicine and drive. For this reason you should observe and be aware of your own reactions to medicines. Don't drive a vehicle if you don't feel normal.

Traffic-related accidents among conscripts are due to:

- **the wrong attitude towards traffic**
- **speed that is too fast in proportion to the situation**
- **not enough driving experience**
- **falling asleep at the wheel**
- **out-dated vehicles**

Too great a speed can cause unexpected dangerous situations. Always wear your seatbelt when driving, and remember that

- even a familiar road can be unpredictable
- others also use the road
- reserve enough time for a drive
- there can be "black ice" on the road surface that you can't see through the wind shield.

Remember to rest enough also when you are on leave.

Traffic discipline and attitudes have become relaxed. You can improve this by
- following traffic regulations, especially speed limits,
- always being sober when driving,
- taking weather conditions into consideration,
- taking traffic density into consideration.

» *Don't let a friend affect the way you drive. Only you feel the road condition and your vehicle. Never urge someone to drive in a way that they are not skilled enough for.*

Always remember to:
- maintain a sufficient safety distance
- anticipate coming situations in all driving conditions
- proportion your speed to the road conditions, vehicle and driving experience.

Keep your car in good condition and make sure that it is safe to drive.

» *Always use a reflector when walking. Use free leave-related transportation that you are entitled to. Use transportation provided by the garrison and public transportation for travel when going on leave.*

7.6 Intoxicants

It is worth quitting smoking and using snuff

Both cigarettes and snuff contain nicotine, which is a toxic substance and detrimental to a person's health. Nicotine also weakens your physical capability by temporarily raising your blood pressure and heart rate, which means that your heart is put under more strain than usual. Nicotine causes blood vessels to contract and blood circulation in muscles to weaken, which increases the risk of injury during exercise and slows muscle recovery after physical exertion. Muscle strength and mass decrease because muscles do not get enough oxygen and nutrients.

It is often wrongly thought that snuff is a harmless alternative to cigarettes. Using snuff may not give you tar lungs, but you are exposed to all the other problems caused by tobacco products and damage the health of your mouth. Scandinavian snuff has a high nicotine level (c. 20 times more than cigarettes) and prolonged use causes a strong addiction.

When you give up tobacco products you will quickly feel the benefits even if you have been smoking for a long time. Already after the first few days the carbon monoxide level in your blood will return to normal. nicotine will start to disappear from your body and your sense of smell and taste will improve considerably. After two weeks of not using tobacco products your blood circulation and lungs will function better and your physical capability will improve. Quitting tobacco decreases the risk of getting many diseases, facilitates treatment for illnesses and speeds up recovery. When you quit smoking your performance will improve and your immune system will function better.



7.7 Information and cyber security

Cyber operating environment

The cyber operating environment is an operating environment made up of one or more information systems meant for processing information in electronic form.

Threats directed at the cyber operating environment have changed, their effect is more dangerous to individual people, businesses and all of society. Attacks carried out in the cyber operating environment can be used as means of political and economic pressure, and in a serious crisis, as a means of influence alongside of traditional military use of force.

The battlespace of cyber operations is made up of different layers. The physical layer consists of geographical parts and networks' physical locations and routes. The logical network consists of all those parts of information networks and systems that can be modified electronically and the characteristics of which are not bound to geographical or physical places. These are e.g. message routes and other protocol created for delivering messages. The social layer represents physical persons and their electronic identities (cyber personas). Parts of the upper layer can be located in one or more parts of the physical layer.

Cyber threat

A cyber threat is the possibility of an act or event that affects the cyber operating environment in such a way that, if it succeeds, it endangers a function that is dependent on the cyber operating environment. Threats directed at the cyber operating environment are e.g. information security threats that endanger the correct function or purpose of use of an information system.

Based on its degree of influence, a cyber threat can usually be divided into:

- unintentional disturbances
- intentional disturbances and jamming
- criminality
- violations of the national right to self-governance
- threatening, pressure or hostile use of force

Based on its mechanisms, a cyber threat can usually be divided into:

- denial of service attacks
- encroachment and changing of information
- encroachment and destruction of information/services
- prevention of access to information or services
- encroachment and stealing of information for intelligence and information gathering

Cyber defence

Cyber defence is a part of national cyber security that is made up of capabilities including intelligence, influence and protection.

Cyber protection

Cyber protection includes measures by means of which the Defence Forces' data processing and data transfer systems are protected from the effects of cyber intelligence and influence. Cyber protection is carried in the form of preventive measures where information security requirements are taken into consideration in the planning, building, maintenance and use of data transfer and processing systems. With the help of cyber intelligence, cyber protection makes use of formed and maintained threat and situational awareness.

The Defence Forces protect their own systems in order to be able to carry out their statutory tasks irrespective of threats relating to the cyber operating environment. The most critical weapons and command and control systems, as well as reconnaissance, surveillance and targeting systems are protected against cyber threats under all circumstances. In order to ensure capability, reconnaissance and surveillance capability in the cyber operating environment is developed alongside of that of other use of military force.

Cyber reconnaissance

Cyber reconnaissance is reconnaissance taking place in the cyber environment with the aim of producing analysed information on capabilities and operational models and creating situational awareness required for protection and surveillance. Cyber reconnaissance means reconnaissance that uses information technology to access information processed in information systems.

Cyber influence

Cyber influence means influencing the operation of data transfer and data processing systems. It is based on vulnerabilities detected through reconnaissance and programmes placed in and used to influence a target system.

The Defence Forces' cyber personnel

Cyber personnel is composed of salaried peacetime personnel and conscripts in training. In emergency conditions, salaried personnel is supplemented by reservists trained in cyber operations. Military cyber know-how is integrated as a part of the existing training system and everyone receives basic training in cyber protection. Conscripts have the possibility of applying to serve in cyber duties, where they can develop their own know-how e.g. in different information security testing and cyber surveillance tasks.

Information and cyber security is not just about technology, it also includes know-how and modes of operation. We are all responsible for information security.

8 Reservist training

In the **reservist training system**, the needs of reservist training and voluntary national defence are combined, which enables flexible, forward-going and individual development and supports the development of the troops' capability.

Refresher exercises are the most important part of the training. In addition to this, the know-how and capability of individuals and units is supplemented with voluntary exercises ordered by the Defence Forces from the National Defence Training Association, experience gained from crisis management missions, other voluntary national defence training and reservists' self-guided voluntary training. Reservist training is an entity formed of different types of training where the Defence Forces, National Defence Training Association and conscripts themselves all have their own role.

The wartime unit or a part of it is formed in connection with training choices made during the basic training period and it is assembled at latest at the beginning of the unit training period. After this, training takes place in wartime composition. In this way, those belonging to the same unit experience the same efforts and successes and get to know each other. Mutual experiences increase unit cohesion, which experience has shown to be an important factor in the unit's capability to endure psychological pressure and to perform successfully.

When military service ends, the unit is transferred to the reserve in their wartime composition, in which training continues in training events for reservists. Personnel remains in the same composition for approximately 5-10 years. After that, a new unit from a new contingent is formed and trained for the task in question. The old unit is not disbanded. The aim is to maintain it also in its new task.

The know-how obtained as a conscript has to be maintained and developed also in the reserve. Refresher exercises are held about every 1-5 years. It is possible to maintain and develop one's military knowledge and skills in the Defence Forces' voluntary exercises, on courses or exercises arranged by the National Defence Training Association of Finland or by taking courses in the open on-line learning environment (PVMOODLE).

The activity and voluntary training and capability development of reservists is taken into consideration when a person is later assigned to a wartime task that corresponds to his/her know-how. In addition to gaining voluntary training, you earn refresher training days that are counted towards promotions.

By participating in voluntary training, you have a good possibility to get to know the people you would be working with in emergency conditions. It is easier to work in a familiar group, and as you get to know people, your faith in the capability of your own unit will increase.

The National Defence Training Association of Finland is a public association guided and steered by the Ministry of Defence.

Training arranged by the National Defence Training Association can help you maintain and develop your military know-how and prepare for refresher exercises. Training arranged by the National Defence Training Association can help you develop your instructor and leadership skills, which are also of use in civilian life. The National Defence Training Association cooperates with different educational institutions and you can be given credits for courses you have taken.

By participating in training it is possible to maintain and develop your military know-how and prepare for your own wartime task. National Defence Training Association courses allow you to maintain your shooting skills and test your own know-how and skills in e.g. survival



courses and military/wilderness skill competitions. In such training it is possible to earn refresher training days that are counted towards promotions.

The National Defence Training Association cooperates closely with the Defence Forces in training local defence companies and local units. Ask your superior or regional office for information on applying to join the local defence units.

The National Defence Training Association also offers preparedness and security education and training for disturbances and exceptional conditions as well as everyday security and safety training. This training is open to all and does not require having completed military service. You can also apply for tasks relating to emergency conditions with the National Defence Training Association without military training.

For more information on the Defence Forces and reservist training go to:

- puolustusvoimat.fi
- mpkk.fi
- mpk.fi

» *Voluntary national defence supports readiness!*

9 The Defence Forces as an employer



Military service as basic training for military employment

Military service is an entry requirement and at the same time basic training for military jobs. Military jobs include posts as officers, officer specialists, chaplains and contractual military personnel and non-commissioned officers (NCOs). These posts are all open to both men and women.

Officer, chaplain and some officer specialist posts require an academic degree.

You can also apply for officer specialist posts with a polytechnic degree. NCO tasks require a completed NCO or reserve officer course and a secondary level diploma. Tasks for contractual military personnel require that you have completed your military service and comprehensive school.

During your military service, you will see some of the jobs that the Defence Forces have to offer and you can test your own suitability for a military career. The Defence Forces also offer many jobs for civilians that you can apply for based on your civilian education. Notify your platoon leader and unit commander in connection with your interview if you are interested in a military career. If you are considering a career in the military, complete your basic training as well as you can and apply to NCO or reserve officer school.

After military service you have the possibility of applying for a contractual military personnel job. In such cases, those who want to apply to the National Defence University and who have undergone leadership training usually work as instructors. Contractual military personnel who have rank and file training work in special tasks, as drivers, for example. You can also apply for open posts for NCOs.

The annual application period for the National Defence University is March-April. Entrance exams are arranged in May and courses for cadets begin in September. Instructions on applying are published annually in the National Defence University's selections guide and on its website at maanpuolustuskorkeakoulu.fi/opiskelijaksi.

More information on military professions is available from your company's instructors and you can ask cadets who are carrying out their practical training about their studies. Military professions are also presented in the entrance guides of different educational establishments and institutions of higher education.

» *Leadership training can open the door to a military career!*



The Defence Forces as an employer

As an employer the Defence Forces are fast-evolving, valued and secure. The Defence Forces offer diverse jobs and service locations for soldiers and civilians throughout Finland. Some 12,000 salaried personnel are employed by the Finnish Defence Forces.

The Defence Forces' activities are characterised by goal-orientedness, result, flexibility and co-operation.

To be appointed to a post within the Defence Forces, you must be a Finnish citizen and fulfil the general qualification requirements for a government post. A person appointed to a post within the Defence Forces is also required to be trustworthy in view of the task. A person appointed to a military post must have completed armed military service or voluntary military service for women within the Finnish Defence Forces or Border Guard and their health and physical fitness level must be suitable in view of the post. Employees are required to have an education and work experience in their field.

As an employer, the Defence Forces have several good points. Tasks are independent and challenging, further educating and developing

oneself is valued and the work atmosphere is proven to be good. Personnel welfare is considered important and excellent sports and physical exercise opportunities are available within the Defence Forces. Employment within the Defence Forces is secure and valued within Finnish society. Employees who are interested also have good possibilities for international tasks.

» *The Defence Forces offer challenging and interesting work; work that is meaningful.*

Which of the following professions and tasks within the Defence Forces would suit you?

Education in military science and an officer's profession

Military degrees are the Bachelor of Military Sciences and Master of Military Sciences. The National Defence University offers the General Staff Officer Degree and the Doctor of Military Science Degree, both post-graduate degrees. These studies are conducted at the National Defence University in Helsinki. Some studies are realised under the guidance of the National Defence University in service, branch and functional area schools as well as in the border and coast guard schools.

Studies towards a degree in military sciences include the following areas:

- **Leadership:** "The desire and ability to lead and take responsibility."
- **Operation skills:** "The desire and ability to win battles."
- **Performance:** "The desire and ability to develop."
- **Education:** "The desire and ability to learn and teach."
- **Research:** "The desire and ability to understand."

Bachelor of Military Sciences and Master of Military Sciences degrees

Persons accepted to study for a degree in military sciences receive the right to study towards the Master of Military Sciences degree. They study on the annual cadet course at the National Defence University's Military Academy. Studies are performed in two phases. The lower university degree, the Bachelor of Military Sciences (180 credits) is completed in three years and the upper university degree, the Master of Military Sciences (120 credits) is generally completed in two years.

Completing a degree in military sciences is not alone enough for qualification as an officer. Certain specific vocational military studies are required in addition to the degree.

After the having completed the Bachelor of Military Sciences degree and the vocational military studies, students are appointed to a fixed-term post where they deepen the knowledge they have received by mainly serving for four years as an officer in the brigade-level unit (equiv.) of their choice. After a working phase of at least four years, these officers can return to the National Defence University to complete the Master's degree. An officer who has completed the Master's degree and vocational military studies is then appointed to a permanent post.

Students who are studying for the Bachelor of Military Sciences degree serve in the rank of cadet. Master's students serve in their own military ranks. The education given at the National Defence University is based on scientific research and the best practices of the field. Vocational military studies are closely linked with the studies included in the degrees of Bachelor of Military Sciences and Master of Military Sciences.



The objective of the Bachelor of Military Sciences degree is:

1. basic knowledge of the major and minor subjects included in the degree, or of equivalent entities, and prerequisites for keeping abreast of development in the field,
2. facility for scientific thinking and scientific work methods,
3. prerequisites for studies leading to a higher university degree and continuous learning,
4. prerequisites for applying the acquired knowledge and skills in working life,
5. sufficient communications and language skills.

The objective of studies included in the Bachelor of Military Sciences degree and vocational military studies conducted alongside of it is to produce:

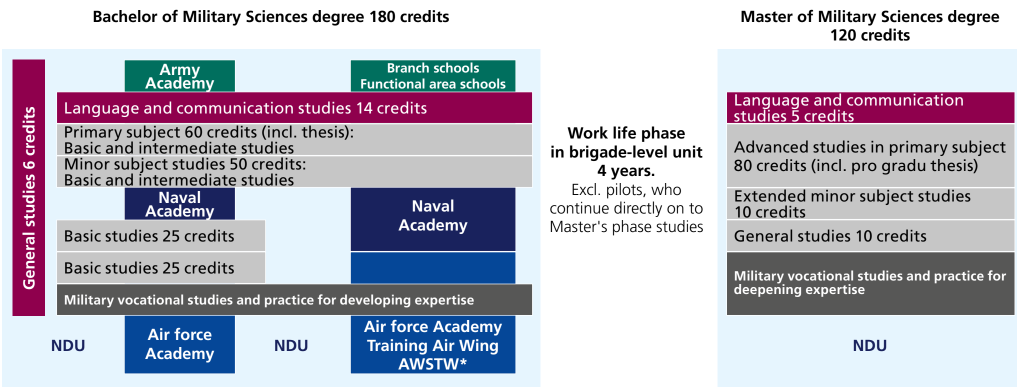
- preparedness to work in middle management and expert tasks in the Defence Forces and Border Guard during peacetime and the foundation needed for working in company commanding officer tasks in international missions;
- preparedness to carry out company commander tasks in wartime in the Defence Forces and Border Guard.

The objective of the Master of Military Sciences degree is:

1. good knowledge of the major subject or an equivalent entity and basic knowledge of the minor subjects,
2. prerequisites for applying scientific knowledge and methods,
3. prerequisites for acting as an expert and a developer in one's own field in working life,
4. prerequisites for scientific post-graduate studies,
5. good communication and language skills.

The objective of studies included in the Master of Military Sciences degree and vocational military studies conducted alongside of it is:

- preparedness to carry out company commander tasks in peacetime and company commanding officer tasks in international missions as well as
- preparedness to carry out battalion commander tasks in wartime in the Defence Forces and Border Guard.



*Aircraft and Weapon Systems Training Wing

When they have graduated, officers who have competed the Bachelor of Military Sciences degree and vocational military studies are assigned a fixed-term junior officer's post in the rank of lieutenant where they mainly serve as instructors at platoon (equiv.) level.

Illustration of the officers' programme above.

Officers who have completed the Master of Military Sciences degree and vocational military studies initially serve in a junior officer's post in the rank of first lieutenant where they mainly serve as e.g. contingent leader or company second-in-command. Later tasks are e.g., company commander, instructor in a military educational institution or staff officer.

Students are accepted onto the **General Staff Officer Course** based on entrance exams. The General Staff Officer's degree is a post-graduate degree for officers. Students gain the knowledge and skills required for senior officers' tasks. The primary task is to train general staff officers for the Defence Forces and the Border Guard who have the knowledge and skills as well as prerequisites for conducting research required for senior officers' tasks in normal and emergency conditions.



The focus is clearly national defence, which is supported by training for multinational crisis management tasks. Successful completion of the General Staff Officer Courses leads to a General Staff Officer's degree comprising 140 credits.

The Doctor of Military Sciences (D.Sc. (Mil. Sc.)) degree is a postgraduate degree in military sciences. The objective of this degree is conducting research and science as well as producing new researched data to support teaching and decision-making and to develop military science. The Doctor of Military Sciences degree is aimed primarily at officers who have completed the General Staff Officer Course. For special reasons, a person who has completed a suitable Master's or higher degree at the National Defence University or other university can be accepted to study towards this degree. The extent of the Doctor of Military Sciences degree is 70 credits. In addition to studies, a thesis is also written.

Requirements for an officer's career

Qualification for university-level studies in general as well as reserve officer or reserve NCO training. Reserve NCOs complete the platoon leader course at the Reserve Officer School in connection with the beginning of the cadet course. Applicants' psychological and physical fitness must be suited for the officer's profession. Applicants should be at most 26 years of age, with the exception of those who want to become pilots, who should be at most 23 years of age. Applicants must successfully complete the aptitude tests and exams, and run at least 2,600 metres in the 12-minute running test. Applicants must also have fully completed their military service or voluntary military service for women before the cadet course begins.

Additional information can be obtained from the websites: maanpuolustuskorkeakoulu.fi/opiskelijaksi and upseeriksi.fi

Benefits of an officer's education and profession

Students studying for the Bachelor of Military Sciences degree receive a cadet's per diem for their entire study period. Accommodation, the studies themselves and study material is also free of charge. During the work life phase and while studying for the Master of Military Sciences degree, officers receive a junior officer's salary. Graduates are guaranteed a secure job and rising career development. Work tasks and the training they provide prepare officers for more demanding tasks.

Special characteristics of an officer's education and profession

Applicants are required to have reserve officer or NCO training and to have completed their military service. In addition to this, they must have the prerequisites, ability and motivation for demanding university-level studies. Studies are intense and carried out in course-form in boarding school conditions.

In order to be accepted as students, applicants must show leadership qualities, good physical condition and suitability for the officer's profession.

A service commitment is required for bachelor's and master's as well as general staff officer studies. The service commitment is made when studies begin and it is in force upon graduation. The length of the service commitment corresponds to the length of the studies completed. Peace and wartime leadership tasks require leadership skills, stress tolerance, good physical condition and continuous development of professional skills. Officers are liable for transfer, although transfers are seldom carried out against the will of the person in question. However, development in the officer's profession does require experience of different tasks and different locations. Removal costs caused by transfers are reimbursed. The highest-level tasks require extensive experience and certain posts require service in international tasks.

Officer specialist tasks and training

Around 800 officer specialists serve in the Defence Forces. They work in leadership, planning and expert tasks in among others the fields of technological systems, medicine or ecclesiastical work.

Officer specialists serving in the Defence Forces have obtained an education in their own field outside of the Defence Forces. The education provided for officer specialists and chaplains by the Defence Forces is mainly supplementary training.

Continuing training for officer specialists includes among other things comprehensive national defence and professional development studies (extensive professional qualification studies) at the National Defence University and service-specific educational programmes in the branch schools. Some officer specialists study on the Senior Staff Officer Course, Chiefs of Branch Course, Senior Command Course, High Command Course and Regional and National Defence Courses.

Jobs are advertised on-line at valtiolle.fi. Further information is available from the establishment or headquarters where the available posts are situated.

» *Officer specialists are experts in their own field.*

Tasks and training for civilian personnel

More than 4,000 civilians serve in different tasks involving administration, logistics and special fields in all brigade-level units, establishments and headquarters within the Defence Forces. There are jobs for people with vocational and/or academic educations.

Civilians with a suitable educational background and working experience for the task are employed.

Personnel with a degree from a university or higher educational establishment work as for instance physician, researcher, military lawyer, engineer, psychologist, financial planner, language specialist and head of information technology.



Jobs are advertised on-line at valtiolle.fi. Further information is available from the establishment or headquarters where the available posts are situated.

» *Civilian personnel are experts and specialists in their own field.*

The NCO profession and continuing training for NCOs

Recruiting and selections among NCOs is done based on know-how displayed during military service and on professional skills gained in the civilian world. Compared to the military science degrees, you don't really study to become an NCO within the Defence Forces. Instead, an applicant who wants to work as an NCO must have completed a secondary-level education, i.e., have a vocational diploma, or have finished secondary school. In recruiting, it is considered to be to the applicant's advantage if he or she has completed the NCO or reserve officer course during military service or has obtained other suitable special training.

NCOs are selected directly for their task. However, while they carry out their duties, their know-how continues to be developed through on-the-job learning and training. The basic idea in developing NCO know-how is that, using the entire spectrum of measures available, brigade-level units are responsible for the development of the know-how that NCOs need in their work. The focal point for developing know-how is on-the-job learning at the workplace that is proven by the results displayed.

The NCO task structure is divided into basic, general and master level tasks. As experience and know-how increases, NCOs can progress towards master level.

The Defence Forces arrange vocational military studies for NCOs. The Defence Forces train NCOs to be specialists in their own field. NCO training is built on a four-tier system where continuing training is offered throughout the NCOs career from basic to master level. Studies are carried out in the service, branch and functional area schools. Also other study opportunities within the Defence Forces can be used in developing NCO know-how. On-the-job learning plays an important role in the development of NCO know-how. The know-how of NCOs is developed in their own workplace under the guidance of an appointed experienced expert or peer.

Special characteristics of the NCO's profession
Peace and wartime leadership tasks require leadership skills, stress tolerance, good physical condition and continuous development of professional skills. The highest-level tasks require extensive experience, in-depth professional skills and certain posts require service in international tasks.

Benefits of the NCO's profession
Participation in on-the-job learning and training takes place on a normal salary. Accommodation and the training itself are free of charge. Study programmes are mainly multiform, i.e., they include short traditional learning phases and longer distance learning phases, after

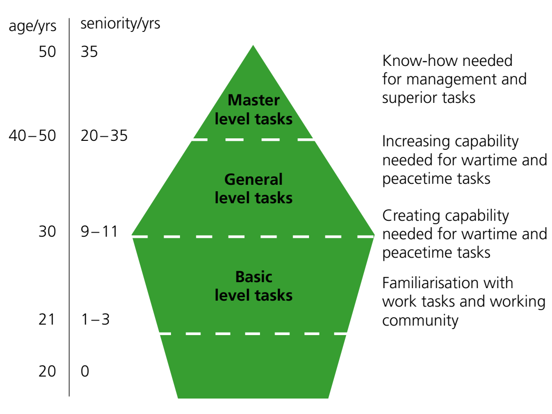


Illustration of NCO task levels.

which evidence of know-how is given. After completing the study programmes, NCOs return to their duties in their brigade-level units. Training on the job and completing study programmes prepare NCOs for more demanding tasks.

Qualification requirements for an NCO post
To be appointed to an NCO's post, the person must fulfil the general qualification requirements for a military post. In addition to this, the brigade-level unit that the person is applying to will arrange a 12-minute running test where at least a satisfactory result must be achieved in accordance with the requirements of the table on age class and gender of military personnel. It is to an applicant's advantage if he or she has training or experience suited to the NCO task in question and has completed the NCO or reserve officer course or other special training suited to the task.

NCO tasks mainly require having completed the NCO course.

Contractual military personnel in the Defence Forces; instructors and special tasks

Are you interested in the officer or NCO profession? Apply for special tasks in your brigade or become an instructor by joining the contractual military personnel. You will receive a job and experience in the profession. Applicants must have reserve officer or reserve NCO training.

Contractual military personnel work in for example the following tasks:

- target instructors
- assistant rapid deployment force instructors
- international rapid deployment force speciality instructors in tasks requiring peacekeeping experience (equiv.)
- assistant instructors on warships, support ships and mother ships (ordnance, machine, signal)
- weapons and command and control systems users
- line maintenance in relation to the training of units
- assistant mechanic in air commands, assistant mechanic duties in wing service

Tasks for contractual military personnel in special tasks are primarily tasks for rank and file with special training that you have received training for and that accord with your wartime placement.

The service rank of contractual military personnel is their rank in the reserve. More information is available from your company's instructors. Application forms are available from the company sergeant major.

10 Appendices

Further reading

The most common regulations are also found on-line at puolustusvoimat.fi/asiointi/aineistot/ohjesaannot-ja-oppaat.

General military training
- Johtajan käsikirja (Leader's handbook)
- Kouluttajan opas (Instructor's guide)
- Sotilasoikeudenhoitoa koskevia säännöksiä (Regulations on military judicature)
- Sotilaspedagogiikan perusteet (Basics of military pedagogy)
- Sulkeisjärjestysohjesääntö (Close order regulations)
- Varusmiehen sosiaaliopas (Conscript’s social guide)
- Yleinen palvelusohjesääntö (General service regulation)
- Taskutietoa Maanpuolustuksesta (Facts about national defence)
- Conscript

Weapon, shooting and combat shooting training
- Ampumakoulutusopas (Shooting training guide)
- Kevytasekirja (Light weapon guide)
- Lähitaistelun käsikirja (Close quarter battle handbook)
- Maavoimien ampumaohjelmisto (Army firing programme)
- Panssarintorjuntaopas (Anti-tank guide)
- Rynnäkkökiväärin käsikirja (Assault rifle guide)
- Sinkoampujan käsikirja (Rocket launcher guide)

Combat training
- Talvikoulutusopas (Winter training manual)
- Pimeäkoulutusopas (Night training guide)
- Taistelijan opas (Combatant’s guide)
- Ryhmänjohtajan opas (Section leader’s guide)
- Joukkueen opas (Platoon’s guide)
- Jääkärijoukkueen- ja jääkäriryhmän johtajan koulutusohje (Jaeger platoon and jaeger section leader's training guide)
- Linnoittamisopas I & II (Fortification guide I & II)
- Taisteluasukokonaisuus (Combat uniform guide)
- Maastouttamisopas (Camouflaging guide)
- Kenttäpuhelinopas (Field telephone guide)
- Kenttäviestivälineopas (Field communication devices guide)
- Sotilasmerkistö ja lyhenteet (Military symbols and abbreviations)
- Viestiliikenneopas (Communications guide)
- Suluttamisopas (Obstacle construction guide)
- Suojeluopas (CBRN guide)
- Suojelumies (CBRN defence man)
- Suojelujoukkojen koulutusopas (CBRN unit training guide)
- Suojelun käsikirja (CBRN handbook)

Physical capacity
- Liikuntakoulutuksen käsikirja (Physical training handbook)

Psychological capability
- Mielenterveysopas (Mental health guide)

Ethical functional capacity
- Sodan oikeussäännöt (Rules of armed conflict). Kansainvälisiä ihmisoikeusasiakirjoja II (International human rights documents II)
- Sodan lait (Laws of war). Käsikirja (Handbook). Gunnar Rosén. Finnish Red Cross. Publisher: Painotalo Miktor. Helsinki 1988
- Valonen Helena. Hyvä käytös huomataan (Good behaviour is noted). Gummerus Kirjapaino Oy. Jyväskylä 1997.

General logistics training
- Ensiapuopas (First aid guide)
- Varusmiehen terveysopas (Conscript's health guide)
- Kenttähygienia käsikirja (Field hygiene handbook)
- Kenttälääkintä, ensihoidon perusteet (Field medicine, primary care basics)
- Terveys ja toimintakyky (Health and functional capacity)
- Sotilaan ympäristöopas (Soldier's environmental guide)
- Varusmiehen muonaopas (Conscript’s food guide)

Internet
- Defence Forces: puolustusvoimat.fi
- National Defence University: maanpuolustuskorkeakoulu.fi
- National Defence Training Association of Finland: mpk.fi
- Ministry of Employment and the Economy: mol.fi

0 1 2 3 4 5 6 7 8 9 10 11 12

7,62 rk 62:n ja kk 62:n

KOHDISTUSKORTTI

Sivusuunnan kohdistus	Korkeussuunnan kohdistus

7.62 rk 62, ampumaetäisyys 150 m

Sivusuunnan kohdistus

1. Korjataan siirtämällä jyvää iskemän suuntaan.
2. Siirtoruuvin yksi kierros vastaa 25 cm taulussa. Yksi napsaus vastaa 2 cm taulussa.
3. Kaasukammioon merkitty piirtoväli (1 mm) vastaa n 32 cm taulussa.
4. Aseen mieskohtaisen tarkkuuttamisen jälkeen voidaan sivusuuntaa nopeasti korjata myös muuttamalla tähtäyspistettä.

Korkeussuunnan kohdistus

1. Asetin 150 m:n kohdalle.
2. Korjataan avaamalla ruuvimeisselillä reikätähtäimen kiinnitysruuvi ja nostamalla (iskemä alhaalla) tai laskemalla (iskemä ylhäällä) reikätähtäintä. 1 piirtoväli (1 mm) vastaa n 32 cm taulussa.
3. Aseen henkilökohtaisen tarkkuuttamisen jälkeen voidaan korkeussuuntaa nopeasti korjata myös muuttamalla tähtäyspistettä tai asettimen siirrolla, joka siirtää iskemää taulussa seuraavasti:

1 — 1,5	n 6 cm	3 — 4	n 25 cm
1,5 — 2	n 10 cm	4 — 5	n 32 cm
2 — 3	n 17 cm	5 — 6	n 40 cm

Ampumaetäisyydellä 300 m ovat muutokset taulussa kaksinkertaiset 150 m:in verrattuna.

Sivusuunnan kohdistus	Korkeussuunnan kohdistus

7.62 kk 62, ampumaetäisyys 150 m

Sivusuunnan kohdistus

1. Korjataan avaamalla jyvän jalan kiinnitysruuvi ja siirtämällä jyvän jalkaa iskemän suuntaan. Piirtoväli (1 mm) vastaa n 30 cm taulussa.
2. Aseen mieskohtaisen tarkkuuttamisen jälkeen voidaan sivusuuntaa nopeasti korjata myös muuttamalla tähtäyspistettä.

Korkeussuunnan kohdistus

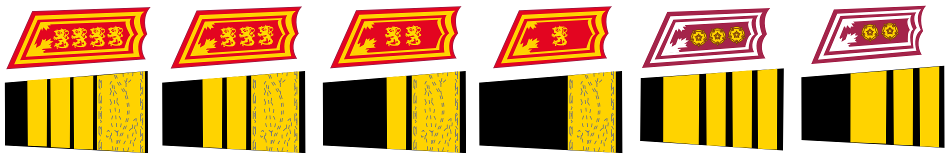
1. Asetin 150 m:n kohdalle.
2. Korjataan kiertämällä jyvää kiinni (iskemä alhaalla) tai auki (iskemä ylhäällä). Yötähtäimillä varustetussa aseessa voidaan jyvää kiertää vain täysiä kierroksia, jotta tritiumlamppu jäisi näkyviin.
3. Voidaan korjata myös avaamalla hahlolevyn kiinnitysruuvi ja nostamalla (iskemä alhaalla) tai laskemalla (iskemä ylhäällä) hahlolevyä.
   1 mm:n muutos vastaa taulussa n 30 cm.
4. Aseen mieskohtaisen tarkkuuttamisen jälkeen voidaan korkeussuuntaa nopeasti korjata myös muuttamalla tähtäyspistettä tai asettimen siirrolla, joka siirtää iskemää taulussa seuraavasti:

1 — 1,5	10 cm	4 — 5	42 cm
1,5 — 2	10 cm	5 — 6	48 cm
2 — 2,5	12 cm	6 — 7	60 cm
2,5 — 3	12 cm	7 — 8	96 cm
3 — 3,5	15 cm	8 — 9	132 cm
3,5 — 4	15 cm		

Ampumaetäisyydellä 300 m ovat muutokset taulussa kaksinkertaiset 150 m:in verrattuna.

Army

OFFICERS AND WARRANT OFFICERS (Lieutenant - Captain)



General | Lieutenant | General Major | General Brigadier | General Colonel | Lieutenant Colonel



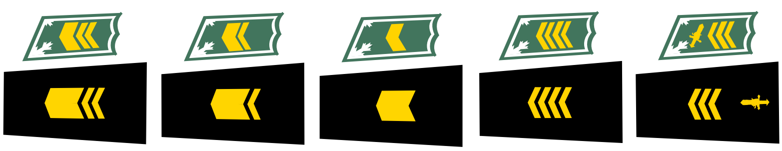
Major | Captain | 1st Lieutenant | 2nd Lieutenant | Lieutenant

CADETS

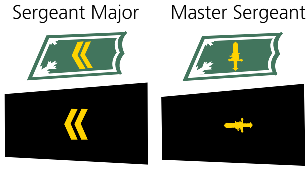


Cadet Warrant Officer 3rd YEAR | Cadet Staff Sergeant 3rd YEAR | Cadet Sergeant 3rd YEAR | Cadet Corporal 2nd YEAR | Cadet 1st YEAR

NON-COMMISSIONED OFFICERS

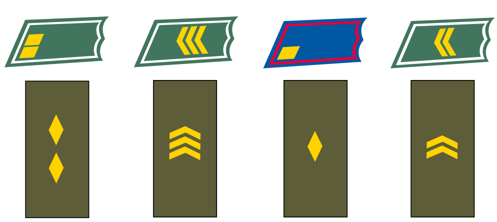


Sergeant Major | Master Sergeant | Sergeant 1st Class | Staff Sergeant | Sergeant (regular personnel with sword)



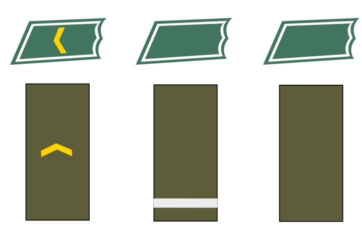
Corporal (rank in the reserve) | Enlisted personnel (rank of regular personnel)

CONSCRIPT LEADERS



Officer Candidate | Sergeant | Officer Student Reserve Offcer School | Corporal

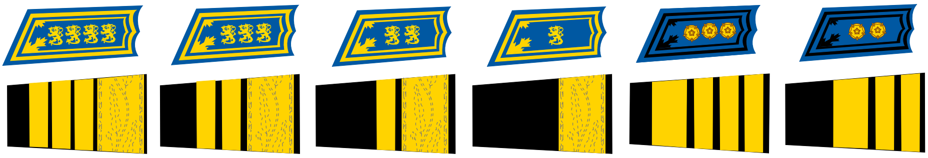
RANK AND FILE



Private 1st Class | NCO Student | Private Jaeger

Air Force

OFFICERS AND WARRANT OFFICERS (Lieutenant - Captain)



General | Lieutenant General | Major General | Brigadier General | Colonel Lieutenant | Colonel



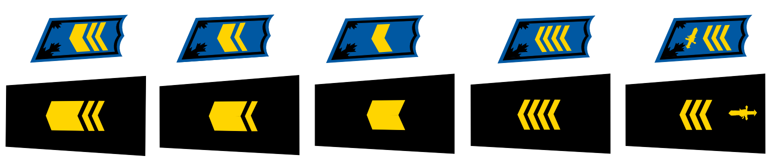
Major | Captain | 1st Lieutenant | 2nd Lieutenant | Lieutenant

CADETS

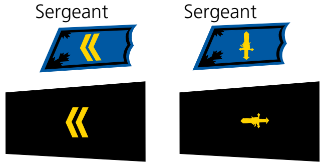


Cadet Master Sergeant 3rd YEAR | Cadet Technical Sergeant 3rd YEAR | Cadet Staff Sergeant 3rd YEAR | Cadet Senior Airman 2nd YEAR | Cadet 2nd YEAR

NON-COMMISSIONED OFFICERS

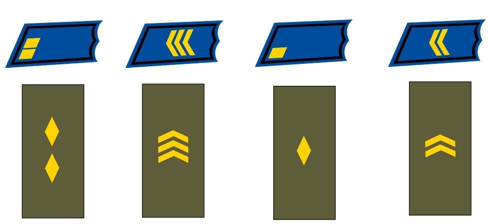


Chief Master Sergeant | Senior Master Sergeant | Master Sergeant | Technical Sergeant | Staff Sergeant (Regular personnel with sword)



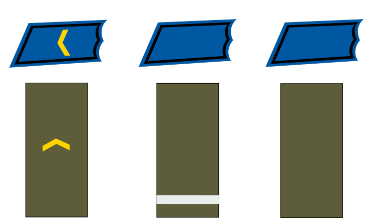
Senior Airman (rank in the reserve) | Enlisted personnel (rank of regular personnel)

CONSCRIPT LEADERS



Officer Candidate | Sergeant | Officer Student | Senior Airman

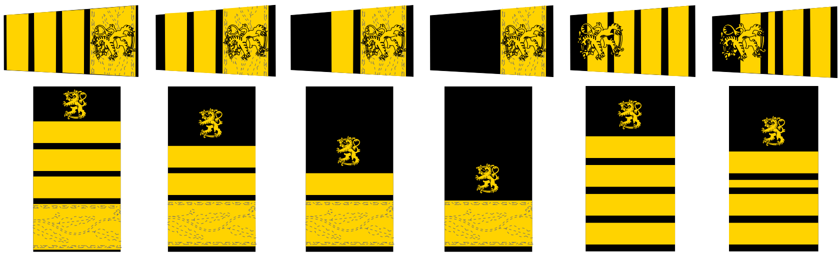
RANK AND FILE



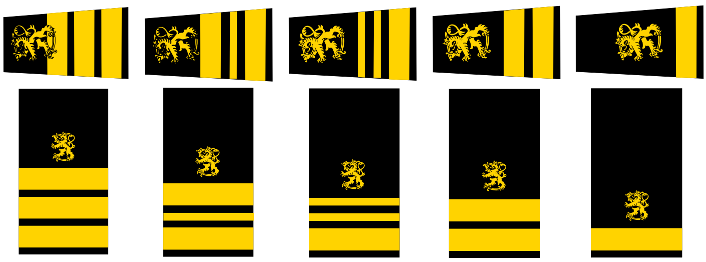
Airman 1st Class | NCO Student | Airman

Navy

OFFICERS AND WARRANT OFFICERS (Lieutenant - Captain)

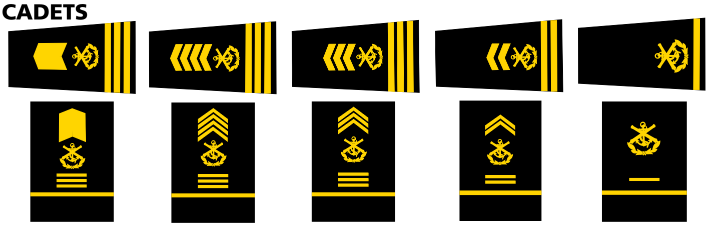


Admiral | Vice Admiral | Rear-Admiral | Commodore | Captain (Navy) | Commander



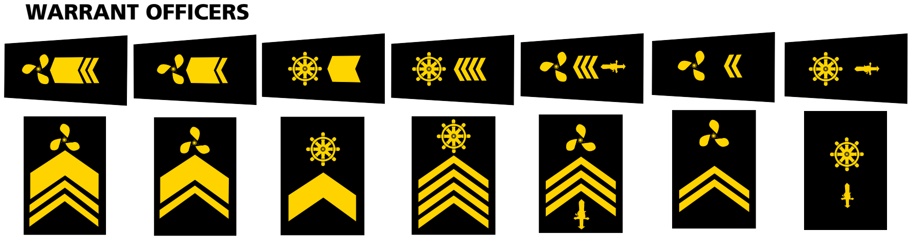
Lieutenant Commander | Lieutenant, Sr. Grade | Lieutenant | Lieutenant Jr. Grade | Ensign

CADETS



Cadet Chief Petty Officer 3rd YEAR | Cadet Petty Officer, 1st Class 3rd YEAR | Cadet Petty Officer, 2nd Class 3rd YEAR | Cadet Petty Officer, 3rd Class 2nd YEAR | Cadet 1st YEAR

WARRANT OFFICERS



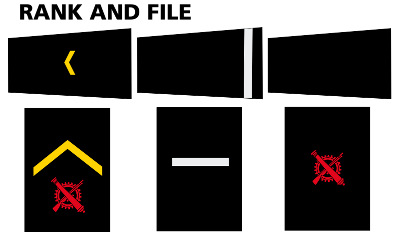
Master Chief Petty Officer, Engine | Senior Chief Petty Officer, Engine | Chief Petty Officer, Deck | Petty Officer, 1st Class, Deck | Petty Officer, 2nd Class, Engine (regular personnel with sword) | Petty Officer, 3rd Class (rank in the reserve) | Enlisted personnel/Deck (rank of regular personnel)

CONSCRIPT LEAD-



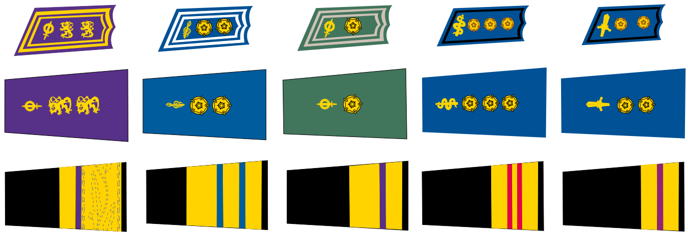
Officer Candidate | Petty Officer, 2nd Class Navigation | Officer Student | Petty Officer, 3rd Class Navigation

RANK AND FILE



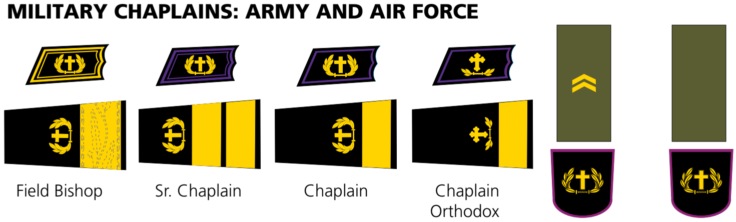
Seaman Ordnance | NCO Student | Seaman Apprentice Ordnance

OFFICER SPECIALISTS: ARMY AND AIR FORCE



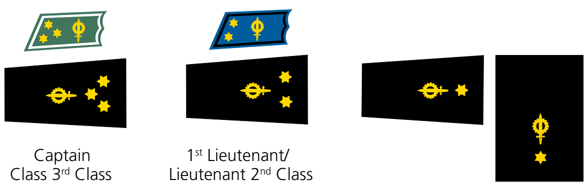
Major General Engineering | Lieutenant Colonel Music | Major Engineering | Captain Medical corps | Lieutenant Technician

MILITARY CHAPLAINS: ARMY AND AIR FORCE



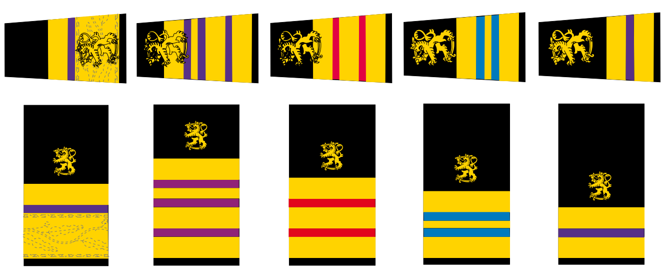
Field Bishop | Sr. Chaplain | Chaplain | Chaplain Orthodox | Conscript Priest/ Conscript Deacon/ Military Deacon (Corporal/ Senior Airman) | Conscript Priest/ Conscript Deacon/ Military Deacon (PrivateAirman)

MILITARY SPECIALISTS: ARMY, AIR FORCE, NAVY / engineering



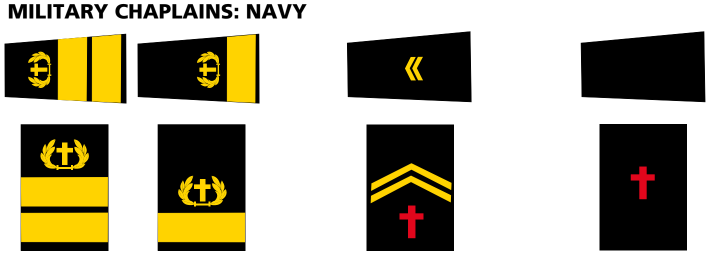
Captain Class 3rd Class | 1st Lieutenant/ Lieutenant 2nd Class | Lieutenant/Lieutenant Jr. Grade 1st Class

OFFICER SPECIALISTS: NAVY



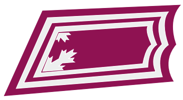
Rear-Admiral Engineering | Commander Engineering | Lieutenant Commander Medical corps | Lieutenant, Sr. Grade, Music | Lieutenant, Jr. Grade, Technician

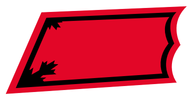
MILITARY CHAPLAINS: NAVY

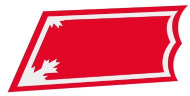


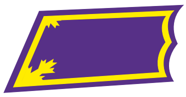
Sr. Chaplain | Chaplain | Conscript Priest/Conscript Deacon/ Military Deacon (Petty Officer, 3rd Class) | Conscript Priest/Conscript Deacon/ Military Deacon (Seaman Apprentice)

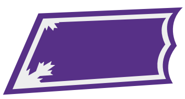
IDENTIFYING COLOURS

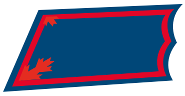

General Staff

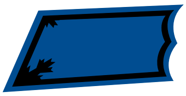

Field Artillery


Air Defence

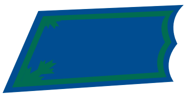

Signals

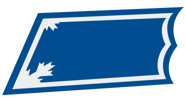

Engineers

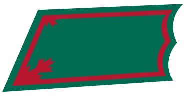

Reserve Officer School


Air Force

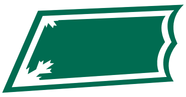

Military Academy

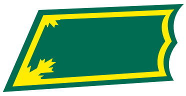

Army Aviation

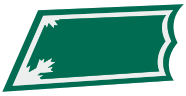

Logistics

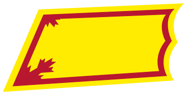

Army Academy

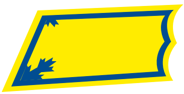

Military Music

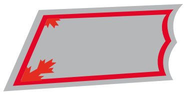

Infantry

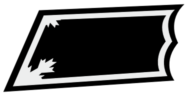

Jaeger

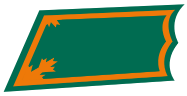

Guard Jaeger Regiment


Häme Cavalry Battalion


Dragoon


Medical and Veterinary Corps


Armoured Troops


Border Guard

OFFICER SPECIALIST INSIGNIA


Special Officer Insignia


Medical Corps


Veterinary Corps


Music


Technician


Finance

Soldier’s Guide

The Soldier’s Guide is given to all conscripts at the beginning of the basic training period. The guide is yours to keep, so you can use it for self-study and for refreshing your memory during your entire military service period and later on, when preparing for refresher training.

The Soldier’s Guide contains information on the things that you learn during basic training. These are the things that all conscripts must have mastered and know after their basic training and the soldier’s basic exam.

The Soldier’s Guide focuses on four main areas of conscript training. These are:
1. General military training
2. Weapons and marksmanship training
3. Combat and march training
4. Fitness training

The purpose of procedures and examples presented in the guide is to provide a basis for military action. A conscript that masters all the basic skills of a soldier can function in any service or branch.

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